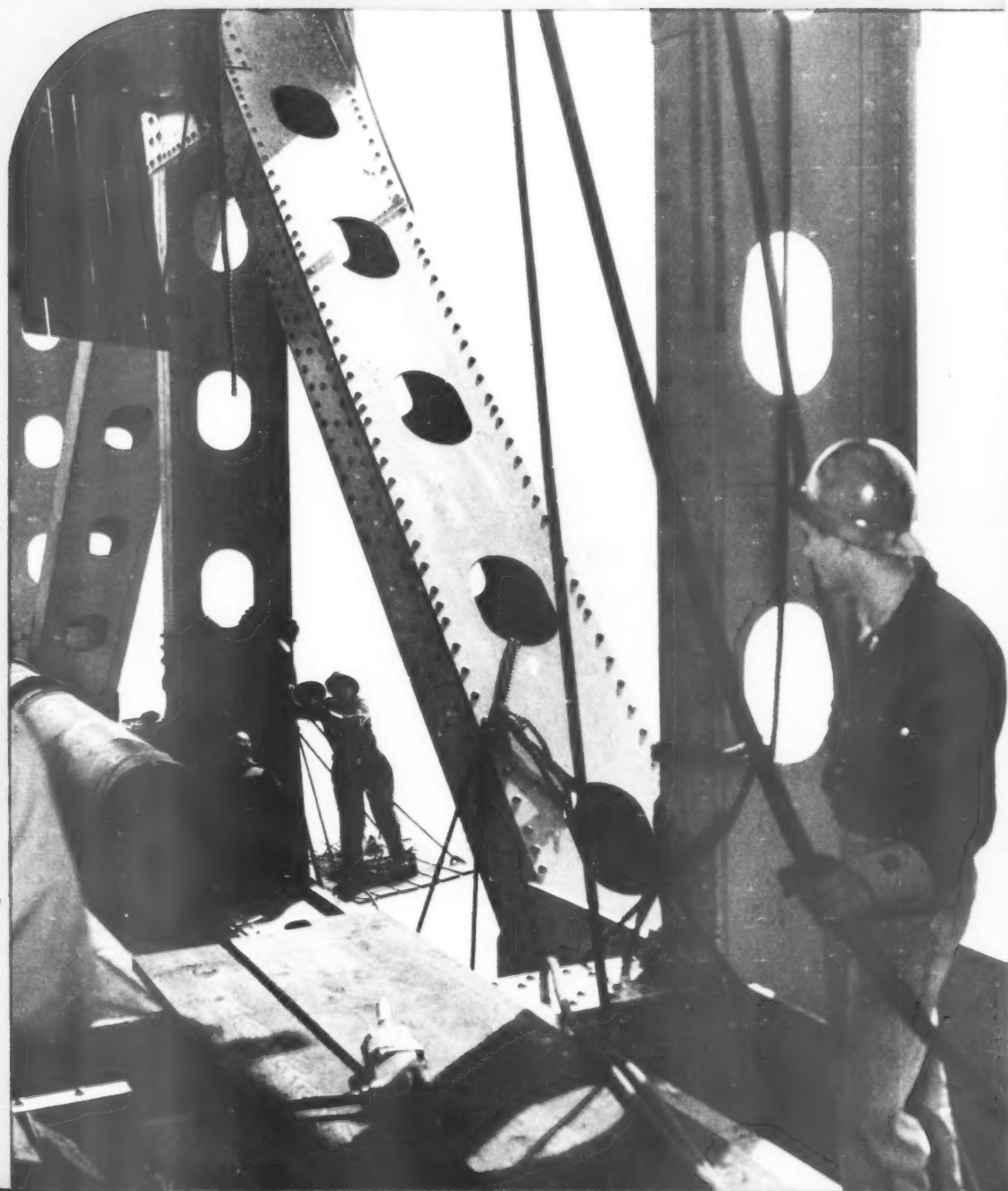


AMERICAN GAS ASSOCIATION

Monthly



Y-AUGUST
1959

*They all fry
with Keating
GAS Fryers
in Times Square*

The pace set by Times Square demands good food served fast to guarantee profitable customer turnover. That's where Keating Gas Fryers come in.

Start at Grants . . . where 25,000 people a day eat delicious french fried potatoes and oysters that are golden, crispy, and delicious right from the Keating Gas Fryer.

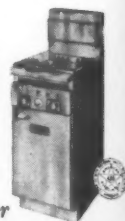
Look in the windows of the Frontier . . . Rector's . . . McGinnis'. You'll see Keating Gas Fryers.

Eat at Childs . . . Schrafft's . . . the Astor Hotel . . . Rosoff's Restaurant and Hotel . . . Toffenetti's . . . and you're sure of delicious food served piping hot, thanks to Gas and Keating Fryers.

They all choose the Keating instant recovery deep fryer, because no valuable production time is lost when cold foods are dropped into the cooking compound . . . and the temperature recovers immediately before the food is completely cooked, giving rise to controlled fat absorption, making it always possible to serve perfect fried foods with absolute control—order after order, day after day, year after year.

The advantages of GAS frying . . . speed, dependability, cleanliness, flexibility . . . have been endorsed by the hundreds of fine restaurants and hotels who now are using high capacity Keatings. For complete information on Keating Gas Fryers, call your Gas Company's commercial specialist, or write to Keating of Chicago, Inc., 1210 West Van Buren Street, Chicago 7, Illinois. American Gas Association.

Keating-Trump Special Fryer



This advertisement appeared in the May issues of "Drive-In Restaurant," "Institutions," and "Volume Feeding Management." It also appeared in the May and June issues of "Restaurant Magazine," the April issue of "American Restaurant," and the June issue of "Fast Food."



Catching white-hot rivets to build Equitable Gas Co. bridge for 20-inch line over the Monongahela River. (Photo by Warren Nicklas and Barry Fain, Equitable Gas)

DELEGATES attending the 41st annual A. G. A. convention will hear one of the most distinguished group of speakers ever presented at an A. G. A. convention. Headed by United States Secretary of the Interior Fred A. Seaton, the general sessions present such men as Erwin D. Canham, editor of *The Christian Science Monitor* and president of the United States Chamber of Commerce, and Dr. T. Keith Glennan, administrator of the National Aeronautics and Space Administration. For a list of other prominent leaders, see page 6. . . . Wister H. Ligon, president, Nashville Gas Co., has been nominated for president of A. G. A. Announcement of the nomination of Mr. Ligon and of other officers, directors and section leaders appears on page 2. . . . If the gas industry is to maintain its progress and keep ahead of competition, it must spend \$4 million a year now, \$6 million a year by 1965, for research. H. A. Eddins reports on the industry's research needs on page 14. . . . The gas industry will sponsor *Playhouse 90* during the 1959-60 season. See page 10. . . . A colorful eight-page section, reprinted from *Sunset Magazine*, appears in this issue. It tells the story of residential use of gas on the West Coast. The section was sponsored by Pacific Northwest Pipe Line Corp.

JAMES M. BEALL
DIRECTOR PUBLIC INFORMATION
WALTER H. DYER
EDITOR
RICHARD F. MULLIGAN
ART SUPERVISOR
JANE POWELL
NEWS EDITOR

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NOS. 7 AND 8

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For vice-presidents ►

For president



WISTER H. LIGON

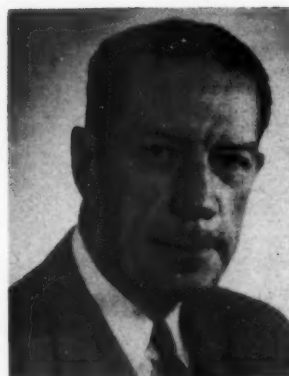
For treasurer ►



L. T. POTTER



E. H. SMOKER



VINCENT T. MILES

For directors



WENDELL C. DAVIS



JOHN E. HEYKE



JOHN C. PARROTT

A.G.A. nominates for 1959-1960



DAVID
DUELL G. DUNCAN



ROBERT E. GINNA



ELISHA GRAY II



HALL M. HENRY



HEYKE
OAKAH L. JONES



RALPH T. McELVENNY



S. LLOYD NEMEIER



ED PARKES



PARROT
JOHN W. PARTRIDGE



N. R. SUTHERLAND



S. D. WHITEMAN



JOHN H. WIMBERLY

Wister H. Ligon, president, Nashville Gas Co., and first vice-president of A. G. A., has been nominated for president of the Association for the coming year.

Mr. Ligon and other officer and director nominees were selected by the A. G. A. General Nominating Committee. Delegates will vote on this slate during the annual convention to be held Oct. 5-7 in Chicago. Election of officers will take place during the final general session on Oct. 7.

L. T. Potter, president, Lone Star Gas Co., and second vice-president of A. G. A., was nominated for the office of first vice-president. E. H. Smoker, president, The United Gas Improvement Co., was nominated for second vice-president.

Vincent T. Miles, treasurer, Long Island Lighting Co., was renominated for A. G. A. treasurer.

The Association's constitution and by-laws, in Article X, Section 2, provide that any 50 company members of the Association may make additional nominations for any or all officers and directors, and that any 50 individual members of any A. G. A. section may make additional nominations for chair-

man or vice-chairman of such section by placing their names in the hands of the A. G. A. managing director not later than Aug. 1.

The General Nominating Committee consists of the following members:

Dean H. Mitchell (chairman), president, Northern Indiana Public Service Co.; N. B. Bertolette, chairman of the board, The Hartford Gas Co.; Glenn W. Clark, president, Mississippi River Fuel Corp.; W. R. Davis, executive vice-president, Southern California Gas Co.; William M. Elmer, president, Texas Gas Transmission Corp.; Lyle C. Harvey, senior vice-president, Carrier Corp.; Donald J. Miller, vice-president, Public Service Co. of Colorado; Otis H. Ritenour, senior vice-president, Washington Gas Light Co.; and George S. Young, president, The Columbia Gas System, Inc.

Jac A. Cushman, A. G. A. secretary, is secretary of the committee.

The committee was unanimous in its selection of nominees. Therefore, in accordance with the constitution and by-laws of

For chairmen



C. H. MANN
Accounting Section



OTTO W. MANZ, JR.
General Management Section



FRED A. KAISER
Industrial and Commercial Section



J. T. INNIS
Operating Section



H. WILLIAM DOERING
Residential Section

For vice-chairmen



REINHOLD H. JOHNSON
Accounting Section



GORDON C. GRISWOLD
General Management Section



L. J. FRETWELL
Industrial and Commercial Section



SAMUEL W. HORSFIELD
Operating Section



H. L. FRUECHTENICHT
Operating Section

the Association, the following list of nominees is proposed to the membership:

For president—WISTER H. LIGON, president, Nashville Gas Co., Nashville, Tenn.

For first vice-president—L. T. POTTER, president, Lone Star Gas Co., Dallas, Texas.

For second vice-president—E. H. SMOKER, president, The United Gas Improvement Co., Philadelphia, Pa.

For treasurer—VINCENT T. MILES, treasurer, Long Island Lighting Co., Mineola, N. Y.

J. THEODORE WOLFE, president, Baltimore Gas and Electric Co., Baltimore, Md., becomes a director of A. G. A. upon completion of his term as Association president.

Newly nominated and renominated directors are:

WENDELL C. DAVIS, president, Cribben and Sexton Co., Chicago, Ill.

BUELL G. DUNCAN, president, Piedmont Natural Gas Co., Inc., Charlotte, N. C.

*ROBERT E. GINNA, chairman of the board, Rochester Gas and Electric Corp., Rochester, N. Y.

ELISHA GRAY II, chairman of the board, Whirlpool Corp., St. Joseph, Mich.

HALL M. HENRY, president, NEGEA Service Corp., Cambridge, Mass.

JOHN E. HEYKE, president, The Brooklyn Union Gas Co., Brooklyn, N. Y.

OAKAH L. JONES, vice-president and general manager, The Consumers' Gas Co., Toronto, Ontario, Canada.

RALPH T. McELVENNY, president, Michigan Consolidated Gas Co., Detroit, Mich.

S. LLOYD NEMEYER, president, Milwaukee Gas Light Co., Milwaukee, Wis.

*ED PARKES, president, United Gas Corp., Shreveport, La.

*JOHN C. PARROTT, president, Roanoke Gas Co., Richmond, Va.

JOHN W. PARTRIDGE, president, United Fuel Gas Co., Charleston, W. Va.

N. R. SUTHERLAND, president, Pacific Gas and Electric Co., San Francisco, Calif.

*S. D. WHITEMAN, president, Kansas-Nebraska Natural Gas Co., Inc., Hastings, Neb.

JOHN H. WIMBERLY, president, Houston Natural Gas Corp., Houston, Texas.

Nominees for Section chairmen and vice-chairmen are as follows:

ACCOUNTING SECTION

For chairman—C. H. MANN, treasurer, Columbia Gas System Service Corp., New York, N. Y.

For vice-chairman—REINHOLD H. JOHNSON, general auditor, The Brooklyn Union Gas Co., Brooklyn, N. Y.

GENERAL MANAGEMENT SECTION

For chairman—OTTO W. MANZ, JR., executive vice-president, Consolidated Edison Co. of New York, Inc., New York, N. Y.

For vice-chairman—GORDON C. GRISWOLD, vice-president and treasurer, The Brooklyn Union Gas Co., Brooklyn, N. Y.

(Continued on page 22)

* Renominated.

Meet your Association staff



Chester S. Stackpole

Chet Stackpole is often called "the man who put the smile on the face of the gas industry."

Probably no greater tribute could be paid to Chet, for the gas industry has developed an enviable sparkle since he became A. G. A. managing director in June 1955.

His dynamic leadership, contagious optimism and enthusiasm for telling the world that "more people than ever are cooking with gas" have helped bring renewed confidence and strength to the folks in A. G. A. and in the entire industry.

While some people call Chet a supersalesman, he is really more than that. His background enables him to view our industry objectively and from every angle.

A member company executive, after talking with Chet for the first time, described him as "the best public re-

lations man I ever met." Yet, it is not only as a public relations man, or as a salesman, that he sees the industry. It is also through the eyes of such people as the research and utilization man, the meter reader, the engineer, the accountant, the advertising and promotion man, the statistician, the operating man, the home service "gals," and the executive.

Since becoming managing director, he has carried the gas industry banner through more than 100,000 miles and some 100 speeches each year. He has appeared before gas industry and other groups throughout the United States, including Hawaii, and Canada. More recently, he spoke in Rome and in Peebles, Scotland.

While away from his desk, Chet keeps in close touch with the office through daily communication.

Chet is endowed with a talent that keeps him constantly in demand as a public speaker. He receives far more speaking invitations than he can possibly accept, but he goes wherever he can, and whenever he can, to further the gas industry cause.

Like a famed football coach addressing a team at halftime, Chet has a way of creating enthusiasm in his audience. He can fire his listeners into an action mood, leave them breathless for a moment, and send them home determined to chase the competition into a "panic."

His dependence upon teamwork for success is shown by his frequent comment that he "works for the best industry group and has the finest Association staff personnel there is."

Chet's genuine friendliness truly makes him a goodwill ambassador for the gas business.

Before becoming managing director, Chet held executive positions with manufacturers and utilities. He served as vice-president with both the Airtemp Division of Chrysler Corp. and with Eureka-Williams Corp. He also was general sales manager for the Heating and Cooling Division of Union Asbestos and Rubber Co.

As a member of Stone and Webster, Inc., he held executive sales positions with Blackstone Valley Gas and Electric Co., Fall River Gas Works Co., and Virginia Electric and Power Co.

Later, he became a nationally known utility executive while managing merchandising, domestic gas, and electric sales for Baltimore Gas and Electric Co., where he served for 20 years.

While with the Baltimore utility, Chet taught salesmanship and sales management at Johns Hopkins University.

It is little wonder that singing the industry's praises comes easy for Chet. As a student at Brown University, where he received a Bachelor of Philosophy and specialized in business management and economics, Chet was the leader of the College glee club.

Singing remains one of his favorite forms of relaxation. An avid reader, he also enjoys golf, swimming, conversation, and good fellowship.

His professional affiliations include active memberships in such groups as Air Conditioning and Refrigeration Institute, American Society of Heating, Refrigerating and Air Conditioning Engineers, American Ordnance Society, Society of Gas Lighting, Sales Executives Club of New York, Home Improvement Council (he's a director and member of the group's executive committee), American Management Association, Association Committee of the Chamber of Commerce of the United States, and Government Relations Committee of the American Society of Association Executives.

Chet makes his home in a Manhattan apartment on upper Fifth Avenue with his wife Barbara, "who answers to the name Barbie."

He is blessed with two other Barbabas—his daughter, Barbie Lou, and granddaughter, Bobbin. Then there is grandson Stevie, and son-in-law Leroy F. (Nick) Nicholson.

The Nichalsons live in Miami Shores, Fla., "and that gives me an excuse to go to Florida every Christmas."

The one question everyone asks about Chet is "Where does he get all that energy?" The answer may be that Chet has discovered the secret to "really living." He just seems to roll along on the momentum provided by doing a job he really likes—a job for which he is eminently qualified.



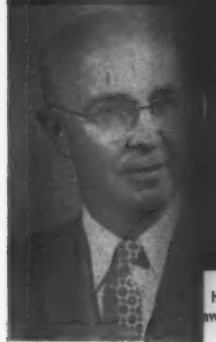
J. Theodore Wolfe will preside and give president's report



General Convention Committee co-chairman is Eskil I. Bjork



J. J. Hedrick also serves as co-chairman for the committee



Roy E. Jones heads the Convention Entertainment Committee

Convention to hear noted speakers

Marvin Chandler arranges general management luncheon



Dr. J. T. Rettaliata will be management luncheon speaker



"The Fabulous Sixties" will be the topic of Dr. Ezra Solomon



C. O. Nickle will review Canadian gas supply



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Herbert True will address
convention's final luncheon



Secretary Seaton will describe
the nation's energy picture



Dr. T. Keith Glennan will dis-
cuss new horizons for research



Noted editor Erwin D. Canham
describes the world we live in

United States Secretary of the Interior Fred A. Seaton heads a list of distinguished speakers who will address the 41st annual A. G. A. convention Oct. 5-7 at Chicago's Conrad Hilton Hotel. Secretary Seaton will discuss "America's Long-Range Energy Picture" at the Oct. 7 general session.

Other general session speakers will include such noted leaders as Erwin D. Canham, editor of *The Christian Science Monitor* and president of the United States Chamber of Commerce; Dr. T. Keith Glennan, administrator of the National Aeronautics and Space Administration and president on leave from the Case Institute of Technology; J. Theodore Wolfe, A. G. A. president, and president of Baltimore Gas and Electric Co.; C. O. Nickle of Calgary, Alberta, Canada, publisher of the *Daily Oil Bulletin*, editor of *Oil in Canada*, and governor of the Canadian Petroleum Association; and Dr. Ezra Solomon, professor of finance, University of Chicago.

In addition, either Lewis W. McNaughton or John H. Murrell of the firm of DeGolyer and McNaughton will speak at the Oct. 7 general session. Mr. McNaughton is chairman of the board, and Mr. Murrell is president of the firm. It is uncertain at this time which of the two will deliver an address on the gas supply outlook.

The convention theme will be "New Horizons for Growth And Service."

Each general session theme will be based on "what's ahead" for the industry. Here is a breakdown of the program as it stands at this date:

The Oct. 5 session theme will be "New Horizons for

Gas Research." Following opening ceremonies, Chicago Mayor Richard J. Daley will welcome delegates to the city. Greetings also will be extended from representatives of GAMA and INGAA.

Vincent T. Miles, A. G. A. treasurer, and treasurer, Long Island Lighting Co., will present the report of the treasurer.

Mr. Wolfe will give the "President's Address" from 11-11:30 a.m. and Dr. Glennan will conclude the first morning with a talk entitled "New Horizons for Research."

As administrator of the National Aeronautics and Space Administration, Dr. Glennan serves as the administrative head of a group of scientists, engineers, technicians and other employees engaged in the research and advancement of aeronautics and space methods.

He also is a member of President Eisenhower's National Aeronautics and Space Council.

At noon on Oct. 5, the General Management Section will sponsor a major luncheon open to all delegates. Section Chairman Marvin Chandler, president, Northern Illinois Gas Co., is in charge of arrangements.

The featured speaker will be Dr. John T. Rettaliata, president, Illinois Institute of Technology.

Dr. Rettaliata will describe the role of the Institute of Gas Technology, both in research and as a training ground for gas industry engineers. Mr. Chandler, who will preside, will make some brief introductory remarks regarding the relationship of the Institute of Gas Technology to the gas industry.

The theme of the Tuesday general session will be "New Horizons for Finance, Legislation, and Management." Fol-

lowing opening ceremonies, Mr. Wolfe, who will preside at each general session, will present the industry's Distinguished Service Award, given each year to the man who has made the most outstanding contribution to the gas industry during the past year.

Past A. G. A. presidents will be honored in a 15-minute ceremony. Then, Mr. Canham will speak on "The World We Live In." Mr. Canham is one of the nation's leading writers, radio commentators, and public speakers. He has been with *The Christian Science Monitor* since 1925. Among his early assignments was coverage of the League of Nations Assembly in Geneva.

Because of his wide contacts and experience, he has been appointed to positions by a number of United States presidents. For example, in 1948, he was named vice-chairman of the United States delegation to the United Nations Conference on Freedom of Information at Geneva, and, in 1949, President Truman appointed him as alternate American delegate to the United Nations General Assembly. Currently, he is giving a weekly analysis of world events, "Erwin D. Canham and the News," on Sunday evenings over the ABC radio network.

Dr. Solomon, who addressed a General Management Section meeting two years ago, returns this year as a general session speaker. He will follow Dr. Glennan and will speak on the subject "The Fabulous Sixties."

A speaker yet to be selected will conclude the Oct. 6 general session. It is expected that this speaker will talk on "Building Aggressive Management."

The Oct. 7 theme will be "New Horizons for Energy and Supply." Mr. Nickle, the Canadian publisher and editor, will open the session with a review of the "Canadian Gas Supply Outlook."

Mr. Nickle is well equipped for this assignment. Besides being governor of the Canadian Petroleum Association, he serves as a director of a number of oil and gas development companies. He was a member of Parliament for Calgary South in the Dominion Government at Ottawa from 1951-57.

Secretary Seaton, a former Nebraska newspaper and radio executive, and a former United States Senator, will then discuss America's energy picture. He has been Secretary of the Interior since his appointment by President Eisenhower on May 28, 1956. As a Cabinet member, Secretary Seaton has repeatedly emphasized that a sound natural resources policy must foster both conservation and wide use.

"The Department of the Interior," he has said, "is keenly aware of the solemn obligation upon the present generation to conserve our physical and scenic resources for our children and our children's children. We are conscious, too, that America's high standards of living today provide ample proof that intelligent conservation and orderly development of natural resources are compatible."

The final general session address will be on the gas supply outlook. The session will close at 11:30 a.m. with the election of new officers and directors. (See nominees, page 2.)

Tickets for the final luncheon, scheduled for 12:30-2:45 p.m. on Oct. 7, will be on sale throughout the convention. Dr. G. Herbert True of South Bend, Ind., will be the luncheon's featured speaker. Dr. True is a writer, lecturer, and creativity consultant. A firm believer in the theory that the world has need of more individuals, Dr. True is expected to advise his audience to become more creative, and move away from

stagnant ideas.

Section meetings will be held on Monday and Tuesday afternoons. The President's Reception and Entertainment will be held Monday evening in the Grand Ballroom starting at 8:30 p.m. Tuesday evening will be open so that delegates can visit or attend company parties, and Tuesday afternoon is reserved for the Ladies Luncheon and Style Show.

The luncheon and show will be held at 1 p.m. in the Terrace-Casino at the Hotel Merriion.

Gas companies in the Chicago area are teaming up to make the convention "the best ever held." Eskil I. Bjork and J. J. Hedrick are co-chairmen of the General Convention Committee. Mr. Bjork is chairman and chief executive officer of Peoples Gas System, and Mr. Hedrick is president of The Peoples Gas Light and Coke Co. and vice-chairman of the board of its pipeline subsidiaries.

Roy E. Jones, president of North Shore Gas Co., is chairman of the Convention Entertainment Committee.

A 10-acre outdoor exhibit of heavy-duty mobile equipment, entitled "New Tools for Growth and Service," and an A. G. A. research exhibit that promises a look into the "world of tomorrow" are expected to capture the interest of all delegates.

The outdoor exhibit, sponsored by the Operating Section but open to all delegates, will feature the newest, most advanced types of equipment used in the construction, operation, and maintenance of gas industry facilities.

The exhibit will be open throughout the convention, but special demonstrations are planned for the afternoon of Oct. 6. Chartered buses will transport delegates from downtown Chicago to the exhibition area, a distance of about nine miles.

Ten New Freedom Gas Kitchens and Laundries will be displayed. Already scheduled are kitchens designed by the following magazines and manufacturers:

American Home, Toledo Desk and Fixture Corp.; *Better Homes and Gardens*, Fashionwood Kitchens; *Bride and Home*, Youngstown Kitchens; *Everywoman's Family Circle*, The I-XL Furniture Co.; *Good Housekeeping*, Whirlpool Corp.; *House and Garden*, St. Charles Manufacturing Co.; *New Homes Guide*, Geneva Modern Kitchens; and *Living for Young Homemakers*, Nevamar Carefree Kitchens. In addition, Whirlpool Corp. will exhibit its "Mrs. America" kitchen. Mrs. Margaret Priebe, Mrs. America of 1960, will be on hand to help demonstrate the kitchen.

The Accounting Section will meet Tuesday afternoon, beginning with a luncheon at 12:30 p.m. Section Chairman J. Gordon Ross, Rochester Gas and Electric Corp., will preside.

The presentation of the Order of Accounting Merit awards by Mr. Wolfe will be one of the highlights of the Section meeting.

Later, Mr. Ross will deliver the annual "Chairman's Report" to the Section, a roundup of Section accomplishments during the past year.

D. W. Peterson, Minneapolis Gas Co., will then give the report of the Nominating Committee. This will be followed by election of officers. (See new officers, page 2.) At this point, the newly elected chairman will take over for the balance of the program.

Three speakers, yet to be named, will address the Section delegates.

The General Management Section, in addition to the Monday luncheon, which is open to all delegates, will hold a

(Continued on page 46)

Mrs. Margaret Priebe of Des Moines, a 36-year-old mother of four children, was crowned Mrs. America of 1960 at the June 20 finals of the 21st annual Mrs. America Homemaking Contest pageant in Fort Lauderdale, Fla.

To succeed Mrs. Helen Giesse of Cleveland, Ohio, as the nation's top homemaker, Mrs. Priebe defeated 50 other candidates who represented every state, including Alaska and Hawaii, as well as the District of Columbia.

The victor, a 5'8" salt-and-pepper-haired wife of a furnace company purchasing agent, was awarded some \$50,000 in prizes. In addition, she can look forward to a year of personal appearances, advertising testimonials and product demonstrations on behalf of 16 national advertisers participating in the contest.

Mrs. Priebe was sponsored by Iowa Power and Light Co. and Sidles Co. of Des Moines, a gas appliance distributor for Whirlpool Corp.

Mr. and Mrs. Priebe's children are Margaret, 14, Gregory, nine, Douglas, seven, and Karen Jane, three.

The new Mrs. America is a graduate of Drake University, and she taught elementary school before her marriage in 1943. Currently, she is president-elect of the 75-unit Des Moines Council of Parents and Teachers. She also is a Sunday School teacher for a Methodist Church in Des Moines.

The runner-up is Mrs. Elizabeth Stokes of Traverse, Mich., who was sponsored by the Michigan Consolidated Gas Co. Mrs. Stokes, who is 37, is the wife of a surgeon. Dr. and Mrs. Stokes have four children, Patricia, 11, twins William and Thomas, nine, and Nancy, 5.

Third place was won by Mrs. Vernell Jones of Milwaukee, Wis. The wife of a realtor, and the 34-year-old mother of two children, she was sponsored by Milwaukee Gas Light Co. The children are William, 11, and Pamela, nine.

The Saturday finals were televised nationally by the CBS-Television network. National interest in the event was proven by Arbitron, TV rating concern, which reported that a survey in six major cities showed that the one-hour spectacular was seen by 52 per cent of the national television audience.

During the final ceremonies, H. Hansell Hillyer, who organized and is president of Hansell Hillyer, Inc., was presented with a sterling silver trophy by

Mrs. America, Inc., in behalf of his "untiring efforts in promoting the Mrs. America contest throughout the gas industry."

Mr. Hillyer, chairman of the board of South Atlantic Gas Co., earlier had completed a series of contracts between Mrs. America, Inc., Bert Nevins, its owner, and Whirlpool Corp., which made Whirlpool Corp. the major sponsor and placed on Hansell Hillyer, Inc., "the burden of securing sufficient gas company participation to justify Mrs. America, Inc., and Whirlpool Corp. in continuing the program as a vehicle for gas promotion. . . ."

A. G. A. had served as the major sponsor since 1950. Last September, the Association discontinued sponsorship.

Whirlpool has an option through July 1959 to acquire Mrs. America, Inc., outright by purchase of all its shares.

The new queen of homemakers returned to Des Moines on June 27 where she was accorded a gala reception by the city and state. Included among the notables on hand to honor Mrs. Priebe was the governor of Iowa and the mayor of Des Moines.

She is slated to begin her whirlwind personal appearance tour on July 14. Mrs. Priebe will be seen during the A. G. A. convention to be held Oct. 5-7 in Chicago. While there, she will be a guest of Whirlpool Corp.

Mr. Nevins has announced that an innovation will be made for the 1959-60 tour. Because of the heavy demand for appearances—an impossibility for one person—Mrs. America, Inc., has arranged also to have available for tours the winner of the first Mrs. America contest. She is Mrs. Margaret Chamberlin, who was selected in 1938. Mrs. Chamberlin, a handsome mother in her early forties, will tour during the times Mrs. Priebe is unable to be present because of other commitments.

Sponsors in this year's contest are Whirlpool Corp., Johns-Manville, Lever Brothers, The Gorham Co., Robertshaw-Fulton Controls Co., Standard Brands, Inc., Best Foods Division of Corn Products, Inc., The Hammond Organ Co., Glamorene, Inc., The Toni Co., Culligan, Inc., *Parents' Magazine*, The City of Fort Lauderdale, The Savings Bond Division of the United States Treasury Department, West Bend Aluminum Co., and gas utility companies.

Iowa mother named top homemaker



Mrs. Margaret Priebe of Des Moines, Iowa, mother of four children, was chosen Mrs. America of 1960 in Fort Lauderdale finals

● Beginning Oct. 1, 'Playhouse 90' will be telecast w

INDUSTRY
RENEWS...

Playhouse 90



"The Wings of the Dove" presents (l. to r.) Lurene Tuttle, Inga Swenson, James Donald, Dana Wynter, Isabel Jeans, John Baragrey



"Bomber's Moon," a drama about World War II set in England features (l. to r.) Bob Cummings, Rip Torn, and Larry Gates

After several weeks of intensive screening of available programs, the gas industry has elected to sponsor *Playhouse 90* for the 1959-1960 television year. It will be the fourth consecutive year that the industry has sponsored this distinguished program.

Thus, when the new season opens next Oct. 1, some 12,000,000 American families will again be hearing this familiar opening:

"Oct. 1, 1959. Live from Television City in Hollywood. *Playhouse 90*, brought to you by Your Gas Company in cooperation with gas producers, pipeline companies, and gas appliance and

equipment manufacturers, who bring the modern miracles of gas service to your home."

The selection of *Playhouse 90* was made by the National Gas Industry Television Committee, the General Promotional Planning Committee, and the Program Selection Subcommittee. After evaluating all program possibilities, it was the unanimous opinion of the committees that *Playhouse 90* once again best suited the industry's requirements in terms of broad coverage, tremendous audience, and distinguished stature and prestige.

In announcing the renewal, Clare H.

Zachry, chairman of the National Gas Industry Television Committee, outlined a new and expanded plan for gas sponsorship of the program—one which will mean more exposure than ever before.

These changes will be noted during the 1959-1960 season:

Beginning Oct. 1, and continuing for the 40 weeks of the winter season, *Playhouse 90* will be telecast every other week, instead of the weekly schedule maintained during the past three seasons. The gas industry will be a sponsor for all 20 shows. On the intervening weeks, a series of 90-minute spectaculars

roadcast week for 40 weeks; industry sponsors full half hour

John Kerr and Barbara Geddes play lovers in "Rumors of Evening," a play about World War II



Cliff Robertson and Piper Laurie portray alcoholics in a drama, "The Days of Wine and Roses"



Paul Lambert (l.), Tiger Andrews star in "Seven Against the Wall," a play about Al Capone



Sterling Hayden, Geraldine Page battle flood tides in William Faulkner's drama, "Old Man"



will be scheduled. They will be expensively-produced, talent-studded attractions which should add even greater strength to *Playhouse 90's* time period.

During the 12 summer weeks of 1960, the program will be presented each week. The gas industry will be a sponsor each week. This means that the industry will sponsor 32 shows during the coming season, instead of 26, the number sponsored each season during the past three years.

The total number of commercials will increase from 78, now being seen over the entire season, to 96, an increase of

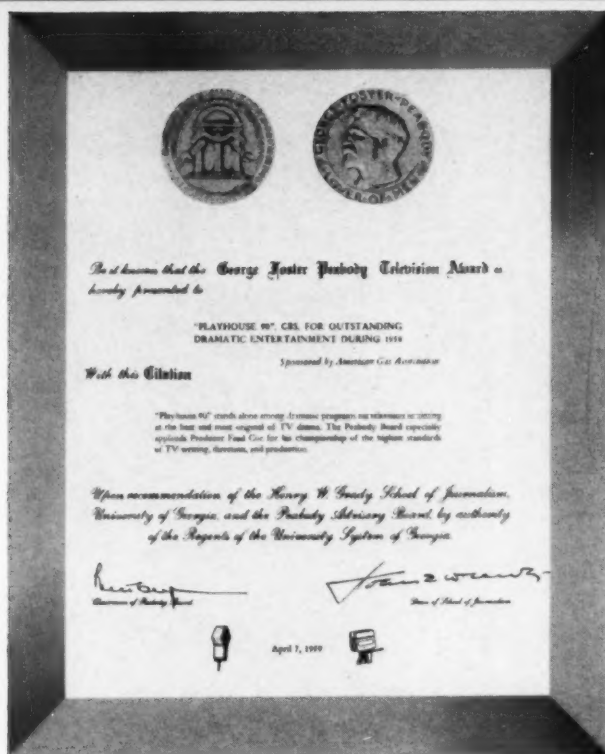
23 per cent in the exposure of gas sales messages to the consumer. The gas industry will be the sponsor during the program's first half hour.

Mr. Zachry pointed out that, although cost of the program will be increased by 6 per cent, the gas industry's sales messages will be increased by 23 per cent during the coming season. He added that, because of the added manufacturer participation in the program, the committee hopes that it will not be necessary to increase allocations to sponsoring companies.

Mr. Zachry emphasized the impor-

tance of each sponsoring company continuing its subscription during the 1959-1960 season "because the withdrawal of even one or two medium-sized companies could jeopardize the industry's ability to continue this vital gas sales program throughout the full 12 months of the next broadcast year."

To date, utility subscriptions for the 1959-1960 television funds are running ahead of past years, Mr. Zachry said. He cited the subscribers for making possible this "greater progress at an earlier date than in any previous year," and said the "subscription total stands as evidence of



The George Foster Peabody Television Award, given by the University of Georgia School of Journalism, was awarded to "Playhouse 90" as "the best and most original of TV drama" and for "outstanding entertainment"

the gas industry's enthusiasm for national television, and its determination to capitalize on TV's proven effect in increasing consumer preference for gas and gas appliances."

During the summer, *Playhouse 90* will present repeat performances of some of its most popular shows. The agenda includes the following plays:

• July 23—"Free Week End," starring

James Whitmore, Kim Hunter, Nina Foch, James Backus, Buddy Ebsen, Martin Balsam, and Charles Bickford.

• July 30—"Rumors of Evening," with John Kerr, Barbara Bel Geddes, Robert Loggia, Pat Hitchcock, and Robert F. Simon.

• Aug. 6—"The Wings of the Dove," featuring Dana Wynter, John Baragrey, James Donald, Isabel Jeans, Inga Swenson, Henry Daniell, and Lurene Tuttle.

• Aug. 13—"The Return of Ansel Gibbs," starring Melvyn Douglas, Diana Lynn, Earl Holliman, Mary Astor, Loring Smith, and Ilka Chase.

• Aug. 20—"The Velvet Alley," with Art Carney, Katharine Bard, Leslie Nielsen, Jack Klugman, Bonita Granville, George Voskovec, and Alexander Scourby.

• Aug. 27—"Nightmare at Ground Zero," featuring Barry Sullivan, Jack Warden, Carl Benton Reid, Ainslie Pryor, and Edmon Ryan.

• Sept. 3—"Dark As the Night," starring Michael Wilding and Laraine Day.

• Sept. 10—"Old Man," with Sterling Hayden and Geraldine Page.

• Sept. 17—"The Days of Wine and Roses," featuring Piper Laurie, Cliff Robertson, and Charles Bickford.

• Sept. 24—"Child of Our Time," starring Liliane Montevecchi and Robert Crawford.

PEP drive to boost commercial load opens in September

A major effort of every gas utility is to continue building the commercial gas cooking load—one of the most profitable and steady loads available.

To encourage and to help gas companies promote commercial gas sales, the A. G. A. PEP (Performance, Economy, Profit) campaign was developed in 1951 in an effort to launch an all-out offensive toward boosting sales of commercial cooking equipment.

The eighth consecutive campaign will be conducted from September through November. It is an industry-wide program that will bring together the gas industry's leading sales forces—dealers, manufacturers, and gas companies—in this annual drive.

Interest in the campaign has increased each year since 1951. The 1959 portfolio is expected to encourage every gas company to join this unified campaign.

It will be mailed in August.

In former years, most participating companies followed the general procedures outlined in the portfolio. However, there are many ways in which the campaign can be conducted. Some companies place considerable emphasis on an annual "kick-off" dinner for company and dealer salesmen. Most companies make successful use of the direct mail materials, and others hold periodic dinners at which time progress prizes or other acknowledgements are awarded for superior work. All companies have cooperated with equipment dealers who use PEP materials as a means of locating new prospects.

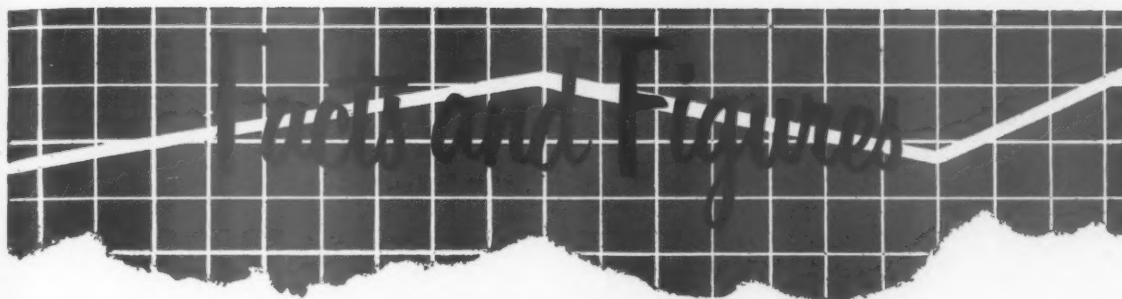
Several contests are conducted during the campaign. Two examples are the A. G. A. National Restaurant Equipment Dealer Achievement Award contest, open to restaurant equipment deal-

ers, and the GAMA Achievement Award contest, sponsored by GAMA's Hotel, Restaurant and Commercial Equipment Division, and open to all gas companies in the A. G. A. PEP campaign.

There is also an incentive plan for local salesmen with awards being selected from a catalogue of merchandise prizes. Such contests are conducted locally by gas companies or equipment dealers.

The GAMA awards for the 1959 campaign again permit more companies than ever before to share in the final honors. There will be four award categories, each for the small, medium, and large companies. Awards are for achieving the highest dollar sales per meter, for showing the greatest improvement in PEP campaign participation, for excellence in general promotional activities,

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Prepared by A. G. A. Bureau of Statistics

The Department of Labor reports that actual public and private home starts in May 1959 totaled 134,000, 23.5 per cent higher than the 108,500 starts recorded in May 1958. The seasonally adjusted annual rate of private homes begun in May was 1,340,000, the highest for that month since 1955, when the annual rate was 1,381,000.

The effect of continued increases in home building was shown in the increase in shipments of gas ranges, automatic gas water-heating equipment, and gas-fired central heating units. Shipments of these major appliances in May 1959 were up 7.2 per cent, 13.9 per cent, and 20.2 per cent, respectively, over May 1958. The most recent figures available for gas dryers show April 1959 shipments 124.6 per cent higher than shipments in April 1958; shipments of electric dryers rose 57.7 per cent during the same period.

During April 1959, total gas sales were 8.5 per cent higher than sales in April 1958. A total of 7,737 million therms were sold to ultimate consumers by the gas utility and pipeline industry in April 1959. This figure is 610 million therms more than the 7,127 million therms sold in April 1958. The increase can be attributed to a significant gain in industrial sales of gas which offset a decrease of .2 per cent in residential and commercial sales. The warmer weather experienced throughout most of the country lessened the demand for gas for heating purposes, but the additional number of new customers being served by the industry kept the decrease relatively small.

Industrial sales of gas in April 1959 amounted to 3,666 million therms, a gain of 20.3 per cent over the 3,047 million therms consumed in April 1958. Industrial production in April 1959, according to the Federal Reserve Board index, was up 18.3 per cent over April

(Continued on page 38)

SALES OF GAS AND ELECTRIC RESIDENTIAL APPLIANCES DURING MAY 1959

(WITH PER CENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR)

	May		April		First Four Months of 1959	
	Units	Per Cent Change	Units	Per Cent Change	Units	Per Cent Change
RANGES (including built-ins)						
Gas	157,900	+ 7.2	164,800	+ 11.2	637,500	+13.9
Electric	n.a.	n.a.	136,100	+ 42.4	564,100	+30.8
WATER HEATERS						
Gas	239,100	+13.9	261,200	+ 17.7	1,053,000	+17.6
Electric	n.a.	n.a.	71,100	+ 3.8	284,300	+10.7
GAS HEATING—Total	89,700	+20.2	88,800	+ 38.5	322,800	+32.0
Furnaces	73,800	+29.9	73,100	+ 48.9	268,700	+39.9
Boilers	7,900	0.0	9,100	+ 23.0	28,200	+20.0
Conversion Burners	8,000	-19.2	6,600	- 13.2	25,900	-10.4
OIL-FIRED BURNER INSTALLATIONS	45,100	+36.6	41,330	+ 18.2	159,860	+ 5.1
DRYERS						
Gas	n.a.	n.a.	23,810	+124.6	130,050	+58.4
Electric	n.a.	n.a.	43,950	+ 57.7	260,630	+25.1

Source: Gas Appliance Manufacturer's Association, National Electrical Manufacturer's Association, "Fuel Oil and Oil Heat," and American Home Laundry Manufacturer's Association.

GAS SALES TO ULTIMATE CONSUMERS BY UTILITIES AND PIPELINES DURING APRIL (MILLIONS OF THERMS)

	1959	1958	Per Cent Change
Month of April			
All types of Gas	7,736.9	7,126.9	+8.5
Natural Gas	7,503.5	6,876.2	+9.1
Other Gases	233.4	250.7	-6.9
Twelve Months Ended April 30			
All types of Gas	82,534.9	78,974.7	+4.5
Natural Gas	80,094.9	76,558.1	+4.6
Other Gases	2,440.0	2,416.6	+1.0
April Index of Monthly Utility Gas Sales (1947-49 = 100)	258.0	237.7	+8.5

PERTINENT BUSINESS INDICATORS, APRIL

(WITH PER CENT CHANGES FROM CORRESPONDING PERIOD OF THE PRIOR YEAR)

	April			March		
	1959	1958	Per Cent Change	1959	1958	Per Cent Change
Industrial activity (1947-49 = 100)	149	126	+18.3	147	128	+14.8
Consumer prices (1947-49 = 100)	123.9	123.5	+ 0.3	123.7	123.3	+ 0.3
Housing starts, Non-farm (thousands)	137.0	99.1	+38.2	120.0	81.4	+47.4
New private construction expenditures (\$ million)	2,918	2,551	+14.4	2,698	2,410	+12.0
Construction costs (1947-49 = 100)	174.5	165.9	+ 5.2	173.2	164.6	+ 5.2

Battelle specialists stress that gas industry must boost research budget to \$6 million annually by 1965 to stay ahead of competition

Today's research needs set at \$4 million a year

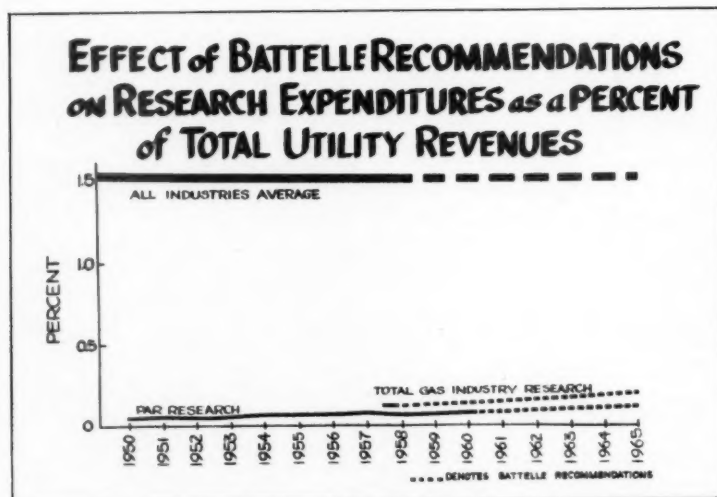


Chart 1

By H. A. EDDINS

Chairman, PAR Committee
President
Oklahoma Natural Gas Co.

Research is of the utmost importance to the gas industry's future. It is a matter of our very existence in continuing prosperity.

It is an accepted business fact that an industry must stay in advance of, or at least abreast of, increasingly rapid change or it will wither. The gas industry, though it is robust at this moment, is no exception.

It also is an accepted fact that the lifeblood of industry growth is research. And the gas industry needs more research.

This is not merely my own opinion, nor even that of the many others within the gas industry who for some time now would have agreed with it. Battelle Memorial Institute specialists were called in, and this is the verdict which they have presented.

These specialists were consulted because it is frequently rewarding for an industry or a trade organization to stand aside periodically and take a new look at itself. This act of soul searching is more likely to be illuminating and productive if it has the benefit of an independent appraisal of the activities under review.

With this thought in mind, the A. G. A. Board of Directors, at its June 13, 1958, meeting, recommended that an appropriate organization be engaged to conduct a broad study of the present and future research needs of the gas industry. The study was to include recommendations as to the proper scope and financial requirements of a research program to meet these needs, and suggestions as to the roles to be played in this program by the American Gas Association and by others.

The report, "An Evaluation of the Research Needs of the American Gas Industry," says:

"The American gas industry has grown at a phenomenal rate since World War II. This growth, in the main, has come from an extension of existing markets by providing a lower cost quality fuel.

"Future growth, however, will be

come increasingly dependent on the development of new uses and applications for fuel gas—and on the ability of the gas industry to offset any trend to increased usage of electricity, or in some cases oil, as a substitute source of energy.

"A. G. A., through its research activities, has met recognized needs of an industry growing primarily through extension of services. Its research program, within budgetary limitations, has been sound and imaginative. The research accomplishments have been many and meaningful.

"The annual growth rate of research effort in recent years has averaged 20 per cent per year compounded. This growth, leading to expansion and extension of research services, has been made possible by increased allocation of funds. On the other hand, to prepare for the new era in gas, a gradual change in the research program objectives is vital. Continuation and expansion of the present type of research are necessary to maintain a vigorous industry.

"But this is not enough. Additional funds must be made available to explore new uses for gas, to provide an increasing awareness of the competition, to provide assurance of continued competitive prices, and to provide in breadth basic scientific and technical data in support of the entire industry's future development efforts.

"Based on a study of competitive energy industries, potential natural gas supply and demand patterns, growth opportunities, and competition in the appliance and equipment markets, and on application of judgment, resulting from long experience in industrial research, Battelle recommends that the annual budget for A. G. A. research be expanded to \$4 million at the earliest date consistent with the good research management and within practical limitations of securing the necessary funds from within the industry. A goal should be established to expand the PAR research effort to \$6 million annually as soon thereafter as is practicable—hopefully within five years.

"This in itself is not enough. Through individual company research, primarily that done by equipment and appliance manufacturers, the gas industry must double its research effort. This means increasing its total research including the PAR program, from the present \$4.8 million to \$9 million as soon as practicable. In comparison, the estimated 1958 research expenditures directed at markets

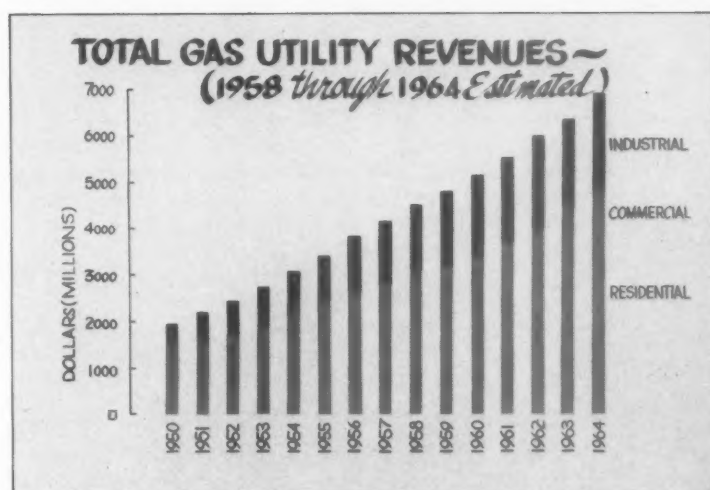


Chart 2



Chart 3

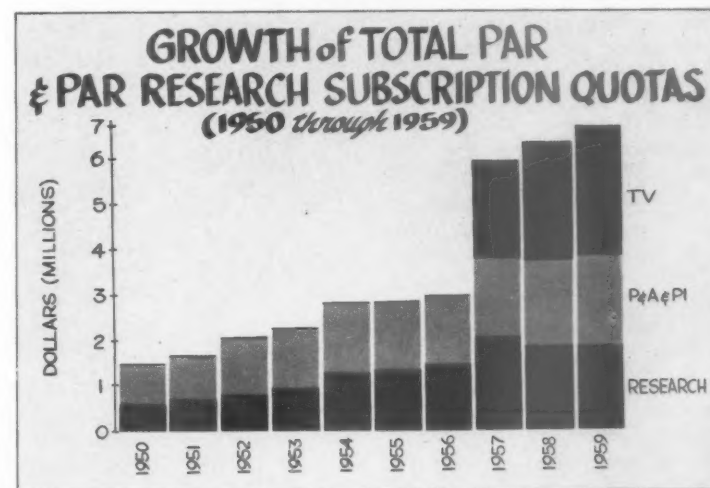


Chart 4

served by gas amounted to \$42 million for electricity, \$11.1 million for petroleum, and \$4.2 million for coal.

"Through these combined efforts, the gas industry should be able to maintain and expand its position. A virile, aggressive, forward-looking industry looks ahead, not behind. Through research, the opportunities can be made available; their realization depends on management."

Those are flattering words to a certain extent for past activities, but we can't operate in a highly competitive business on the basis of past records—either ours or our competitors. The Battelle recommendations must be given a deep and searching consideration in light of what we all know will be a hard fight ahead.

The report has separated research endeavors into three main categories as follows:

1. Market retention and acquisition, \$2 million.
2. Improvement of operations, \$1 million.
3. Future sources of supply, \$1 million.

Market retention and acquisition mean that we must "meet and beat" our growing competition.

The percentage of electric ranges in use has increased from 23.6 per cent to 33.6 per cent over the past eight years. Electric industry research, as well as promotion, has brought about this increase.

Electric water heaters, although showing a smaller rate of increase than ranges, did show an increase from 1953 through 1958. Space heating is another market we must watch carefully, particularly in schools, motels, etc., although a small percentage of the residential market, electric space heating, did increase from zero in 1950 to 500,000 installations in 1958, according to the Battelle figures.

Even in central heating, electric industry research is developing growing threats to our position, with electric resistance heating and the electric heat pump. The oil industry also has its sights fixed on improving its position in this market. Through the American Petroleum Institute, they have launched an oil burner improvement program designed to win back lost ground.

Perhaps air conditioning is of greatest importance. I don't need to go into our needs and desires here, but from its importance as a load and revenue builder in the distribution system, its ability to

improve system load factors and to keep the electric heat pump out, it must continue to receive major research and development attention.

These are but a few examples. There is little doubt that the gas industry must develop improvements in these areas, and in every other area, to maintain and better our position. To capture and hold the imagination of the public with the modernity and superiority of gas, we must pour forth a continual stream of new, better, more economical, more convenient, and more attractive products. To do this will take hard work and money.

This isn't up to any one segment of the industry. A. G. A. through PAR, and the manufacturers, all must put forth their best efforts. But it is up to A. G. A. to take the lead. Some of the manufacturers already are doing great things. For the others, we cannot afford to sit back and wait. It is up to us to furnish the stimulus and the vision, from which they will surely catch fire.

My remarks thus far have been directed to the residential load, but we cannot forget the industrial and commercial markets, where the competitive threat and needs to combat that threat, as well as the rewards, are just as great.

It is also in this same general category—market retention and acquisition—that new uses for gas are included. Here Battelle states, and I must certainly agree, that we need increasing activity in the area of fuel cells, thermo-electric devices and thermionic generators. These devices can open up broader vistas of modern, all gas (and I mean 100 per cent operated by gas) appliances and new fields of gas use of which we have barely dreamed.

Proof of the need for an increase in our research lies in the fact that in 1958 the electric industry spent \$15 million in this field as compared to \$2.5 million spent by the gas industry. This \$15 million is not total electric industry research for market development. It is the amount directed to markets served by gas.

The second general category of research needs is improvement of operations. There can be little doubt but that research in the important field of distribution can be profitably increased. Though I don't know exactly what it costs you gentlemen to add a new customer to your lines or to serve a present customer, any research that will reduce

(Continued on page 47)



Dione Lucas chats with Mindy Carmichael

Dione Lucas TV series syndicated

Miss Lucas guides Henry Morgan





... visits with Madge Evans



... lends a hand to Faye Emerson



... offers dessert to Zachary Scott

Slightly more than a year ago, The Brooklyn Union Gas Co. came up with its most successful local television recipe of all time.

The company took world-famous chef Dione Lucas, added a famous "guest chef" from among show business personalities, put them into a glamorous all-gas kitchen setting, and produced greater audiences and a greater sales impact than with any previous local television endeavor.

The cream of the television series is now neatly packaged on videotape, and this fall it will be available to the entire gas industry.

Brooklyn Union has arranged to offer its *Gourmet Club* television series to interested gas companies on a syndicated basis. Through a working arrangement with New York City television station WPIX, the half-hour programs can be offered to gas company sponsors at a fraction of the original production cost, actually less than a show could be produced "live" in any city.

Each of the programs features world-famous chef Dione Lucas and a famous personality who actually cooks with gas. Among the "guest chefs" are such notables as singer Mindy Carson, actors Zachary Scott, Hurd Hatfield and Walter Slezak, Olympic skating champion

Dick Button, movie star Madge Evans, French musical-comedy star Lilo, Metropolitan Opera's Lauritz Melchior, comedians Bob Elliott and Ray Goulding, and the Strasberg (*The Method*) family with Susan Strasberg.

Gourmet Club, as used by other gas companies, will give every appearance of a live, local production. The programs are reproduced on videotape, which gives a spontaneity and clear-picture quality that were not possible with film. All titles and the three commercial spots will be those of the local sponsors. Gas companies are also free to co-sponsor with any manufacturer.

Each tape will be sent directly to the television station on which it will appear. Several weeks prior to delivery of the tape to the station, a sponsoring utility will receive publicity pictures of the week's guest and a suggested press release. In the same package will be a copy of Dione Lucas's featured recipe on the forthcoming show.

Cost of the television series may be as low as \$100 per week, depending on the market and the number of companies subscribing to the series. For further information, write to Alan L. Smith, publicity and advertising department, The Brooklyn Union Gas Co., 176 Remsen Street, Brooklyn 1, N. Y.

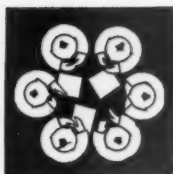
TV CRITICS REVIEW 'GOURMET CLUB'

Jack Gould, *The New York Times*: "If the average cooking show makes the gentleman viewer shudder a trifle, Dione Lucas may prove an exception. . . . Her directions are so specific that they almost have the fascination of a science. If, incidentally, she inspires a distaff companion to more varied efforts in the kitchen, it is well worth the masculine initiative to tune her in."

Jo Coppola, *New York Post*: "Even if you can't boil water, you'll find Miss Lucas at the skillet an impressive sight. I recommend her highly."

Ben Gross, *New York Daily News*: "Dione Lucas's *Gourmet Club* cooking show is the sort of program to make one hungry. . . . Watch her—and before you know it, you may be an Escoffier."

"Billboard": "*Gourmet Club* is a sophisticated cooking show with great appeal to both sexes. . . . The series is bringing back to TV one of the finest culinary artists in the country, Dione Lucas."



Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons
Assistant Personnel Manager
Philadelphia Electric Co.

● **Bright-idea men**—Employees at Boeing Airplane Co. in Seattle find that making suggestions is really worthwhile. In addition to winning a cash award, every suggestor each month is eligible to be chosen top award winner and, as a result, man-of-the-month. Moreover, every man-of-the-month is eligible for the man-of-the-year award.

Last year, the average award to the men-of-the-month was \$1,903. The man-of-the-year won \$5,400. In addition, all of the winners were honored at a year-end steak banquet, and the man-of-the-year was presented with a motion picture camera.

This promotion has paid off for Boeing. The company's suggestion record is near the top of the list of companies of Boeing's size, and participation for 1958 was up 40 per cent over 1957.

● **Two schools of thought about executive development**—Dr. Eugene Jennings of Michigan State University wrote in the March 1959 *Personnel Journal* that there are two rival ways of thinking about executive development. These are the following:

1. **Life-process theory:** Executive character and ability are the results of a slow unfolding. In many cases, they last from childhood to old age. Executives are a product of many years of systematic guidance, and executive development is both a special kind of character building and a long-run semi-conscious experience which is beyond the result of any short-run program.

2. **Skill-insight theory:** Executive development is chiefly a result of being exposed to the use of the right skills at the time in which they are most needed, and of a later re-enforcement of these skills through the understanding of their psychological, sociological, and economic underpinnings. Such training gives to the executive an unusual impetus which is not ordinarily provided by the day-to-day running through of established duties and practices on the job.

Dr. Jennings thinks that instances of one thesis being believed in to the exclusion of the other usually occur in an industry marked by either a semi-monopolistic position or by the extremely competitive and young. For example, in public utilities and banks, he wrote, he seldom finds the life-process theory held. If any

theory is held there, it is rather the skill-insight.

Dr. Jennings believes that executive development programs at universities are thought of by more people today as more valuable for mental revitalizing than for any specific learning that may result. "More and more executives," he wrote, "are viewing this period of creative experience as more important, when done at the right period in their lives, than any knowledge they may pick up."

● **What makes them uncommon?**—"Some men are uncommon to an extraordinary degree, others to lesser. And perhaps most uncommon of all is the common man whose achievements are exalted beyond the expectations of his circumstances."

These words greet the reader of Crawford H. Greenwalt's *The Uncommon Man* just before the first chapter of the book begins, and they serve as a guidepost to what is included in the pages that follow. In realistic and intelligent fashion, Mr. Greenwalt, president of E. I. duPont de Nemours and Co., presents an excellent case for the recognition of individual abilities in the field of corporate management. As examples, he refers to the 34 top operating men at his company, and says that he is proud of the fact that they fit no predetermined—if existent—executive mold.

"The only common characteristic I can recognize in my associates," he writes, "is that they are all very able men and all, in their own ways, rugged individualists."

Mr. Greenwalt urges the establishment of maximum freedom and incentives to spur all personnel to superior effort, and outlines how the compensation system and "hands off" policy currently practiced by his company's management are designed to spur such effort.

Much of this book was originally presented by Mr. Greenwalt during a McKinsey Foundation Lecture Series at Columbia University's Graduate School of Business. *The Uncommon Man—The Individual in the Organization* has been published by McGraw-Hill Book Co. at \$4.

● **Political guide for businessmen**—*The Businessman's Guide to Practical Politics* is a guide on political action written for management people by a management executive with practical political experience from the precinct level up. It is not a discussion of the subject in broad generalities; rather, it is a down-to-earth, practical how-to-do-it presentation.

The book is described as particularly timely for the businessman, because—as a result of the massive movement of labor leaders into the political and legislative arenas—the time has come for businessmen, also, to make their stands known.

The author, J. J. Wuerthner, Jr., presents an over-all picture of current political conditions, and discusses their impact on business. He also covers various phases of political activity, including campaigning, lobbying, corporate public affairs activities, and legal "do's" and "don'ts." In conclusion, he offers a new approach to practical politics and a formula for political victory.

The Businessman's Guide to Practical Politics has been published by Henry Regnery Co. at \$3.75.

● **NLRB rulings: NLRB role in contract disputes**—Most plant executives are well aware of the National Labor Relations Board's job during a union campaign to organize a plant. There may be some doubt in these executives' minds about what actions on the part of management constitute unfair labor practices; but there is no doubt that the NLRB has a policeman's job during such a campaign. A question sometimes arises about whether or not the NLRB will play the part of a policeman and enforce a contract after it has been negotiated.

NLRB Member Joseph A. Jenkins classified the NLRB's jurisdiction in a speech at an arbitration and industrial relations conference in Fort Worth, Texas. Here is what he said:

1. One purpose of the National Labor Relations Act is to encourage collective bargaining by making the refusal to bargain an unfair labor practice.

2. The NLRB was empowered to prevent unfair labor practices. No other law or agreement can interfere with this power.

3. The NLRB's job is not to enforce union contracts. This enforcement is a job for the federal courts in cases involving interstate commerce.

In four instances, however, an attempt is made to involve the NLRB or the Taft-Hartley Act in contract disputes. These are the instances:

1. Rather than follow the contract's grievance procedure, a party may go to the NLRB for a ruling about the application or interpretation of the contract.

(Although it can, the NLRB will not act where a complaint involves a good-faith difference of opinion. Rather, it suggests the use of grievance and arbitration procedures.)

2. A party may take a discharge case directly to the NLRB.

(The NLRB, as a rule, will leave this to the arbitrator, except where (a) there is evidence of collusive union-company action, or (b) there is unfair representation by a union, or (c) the arbitrator applied an invalid clause or rule of law.)

(Continued on page 47)

A.G.A., SGA sponsor safety meeting

The accident prevention committees of A. G. A. and the Southern Gas Association have joined to sponsor the 11th annual Accident Prevention Conference from Sept. 15-16 at the Dinkler Plaza Hotel in Atlanta, Ga.

In addition, A. G. A.'s Accident Prevention Committee and SGA's Accident Prevention Council will hold meetings on Sept. 14 at the same location.

William J. Easton, director of accident prevention, The Cincinnati Gas and Electric Co., will be the conference's program chairman.

During the meeting, A. G. A. safety awards will be presented to the companies which made outstanding progress in improving employee safety records during 1958. In addition, J. H. Waspi, chairman of the National Safety Council's Fleet Safety Contest, will present the top three awards in each category of the contest.

R. G. Taber, president, Atlanta Gas Light Co., will welcome the delegates to the meeting. Atlanta Gas Light will serve as the host company for the conference.

J. M. Wilson, vice-president, United Gas Corp., will deliver the keynote address, entitled "An Operating Vice-President Looks at Accident Prevention." He will discuss his company's accident prevention program, which stresses the importance of integrating safety into all company operations.

The opening day's afternoon theme will be "Safety Ideas That Work." Some of these ideas will relate to customer service and to distribution and pipeline operations.

J. G. Lambert, safety supervisor, Northern Illinois Gas Co., will report on "Reading Meters Through Glass Bricks."

Other opening day speakers and their topics will be A. R. Kelliher, safety director, The Manufacturers Light and Heat Co., "Eliminating Sparks"; R. B.



Marvin B. Travis, A. G. A. chairman of the Accident Prevention Committee



William J. Easton, program chairman for the joint safety conference

Hunsaker, president, Hunsaker Trucking Contractors, Inc., "Transporting Construction Equipment"; V. A. Howell, senior accident prevention coordinator, Long Island Lighting Co., "Guiding Motorists Around Work Areas"; E. E. Taylor, safety engineer, Southern California Gas Co., "Gimmicks That Get Attention"; and E. S. Beaumont, director of safety, The Peoples Gas Light and Coke Co., who will conduct a question-and-answer session on "Safety Ideas That Work."

Raul N. Papich, A. G. A.'s safety manager, will discuss the progress in the area of mouth-to-mouth resuscitation, and will show a film on the research conducted on this subject at The Johns Hopkins University. After the film, he will conduct a question-and-answer period.

A special feature of the conference will be a workshop—the attendance of which will be restricted to corporate officers—entitled "Top Management Looks at Accident Prevention." L. T. Potter, chairman, A. G. A.'s Executive Safety Committee, will moderate the workshop discussion. This is the first time that industry has scheduled a formal discussion of

accident prevention for corporate officers.

The workshops on the second day of the meeting will be coordinated by A. L. Dowden, supervising engineer, Liberty Mutual Insurance Co.

A workshop on ASA Z16.1-1954 will be moderated by Charles Cummings, safety director, Hope Natural Gas Co., and a member of the ASA Z16.1 Committee. The standard will be explained, and the method of reporting annual employee injury experiences to A. G. A. will be detailed.

A workshop on "Motor Vehicle Safety" will deal with the correction of accident repeaters, ways in which to convince drivers to accept decisions regarding the prevention of accidents, and a report from a gas company which has used the Smoth System for more than a year. A. R. Ehrnschwender, superintendent, transportation department, Cincinnati Gas and Electric, and Thomas Gray, safety supervisor, The Brooklyn Union Gas Co., will moderate the workshop.

Other workshops and their moderators will be "Communicating Effectively," James H. Tate, public relations director, Atlanta Gas Light; "Safe Practices in

(Continued on page 38)

*The possibility of enemy air attack
makes it imperative that companies be current in the
reproduction of certain company data*

How to preserve vital records

Many utilities are prepared to cope with the most severe catastrophe of all—bombing by an enemy attack. Each utility, no doubt, has already made plans to preserve vital records from the hazards of fire, flood and tornadoes. But the loss of records from enemy attacks by bombing in the United States would be a new experience for management.

In a report by the A. G. A.-EEI General Accounting Committee on the preservation of vital information to permit reconstruction of records after a catastrophe, the subcommittee states that this subject must be studied by management now—particularly from the viewpoint of providing safeguards against loss through enemy air attacks.

Undoubtedly, every company is complying with the requirements of state and federal regulatory agencies governing the preservation of records. Such programs, in part, are geared to the problem of conserving storage space, and are generally accomplished by periodic microfilming of certain voluminous records.

(This report on preservation of vital information to permit reconstruction of records after catastrophe is a completed project of the A. G. A.-EEI General Accounting Committee, and was presented at the national conference in Chicago.)

In most instances, the reproduction of data may not be at intervals of sufficient frequency, or from the appropriate record, to provide the information necessary to reconstruct essential records after catastrophes such as bombing.

One thing is certain. The possibility of enemy attack from the air makes it imperative that companies be current in the reproduction of certain data. Information which may be vital today can be obsolete 30 days later. For example, consider customers billing data.

It is apparent that the problem cannot be approached from the same point of view as that of compliance with the regulations governing the preservation of records. This can be illustrated by reviewing the list of records contained in Federal Power Commission regulations. Indexes to general ledgers, considered unimportant in a vital records storage program, are required to be retained permanently. Permission can never be granted to substitute a microfilmed copy.

There is a sharp distinction between a program designed to preserve certain essential corporate and operating records pursuant to regulatory re-

quirements, and preserving vital information obtained from such records.

To determine what the managements in the electric and gas industry are doing to protect vital records in the event of a catastrophe, and which records are considered vital, a questionnaire was sent to each company represented on the A. G. A. and EEI General Accounting Committees.

Here is an analysis of the replies received from 52 companies:

- Twenty-seven companies do not have a vital records storage program.
- Twenty-two companies have provided for the safekeeping of records in various degrees.
- Two companies initiated programs but did not continue them.
- One company is in the process of initiating a program.

Of the 27 companies which do not have a program, 20 do not contemplate initiating one—nine because of their geographic location, and 12 because of the cost of maintaining such a program.

One company's program provides "for the storage of records dispersed into homes of management personnel located on the perimeter of, or outside, the metropolitan area."

CRANBERRY RECORD STOREROOM STORAGE OF RECORDS CARD		Aisle
Dept. _____		Bin
TITLE OF RECORD		Page Number
(SEE OVER)		From To
IF THIS RECORD IS COVERED BY APPROVED REGULATION TICKET PLEASE STATE NUMBER		Period of Record
RECEIVED FOR STORAGE		From _____
This record is stored under the plan for protection of vital Company records.		To _____
Warranted Office		Destroy after

REVERSE OF FORM NO. 224

<p>STORAGE OF RECORDS</p> <p>Departments will prepare records for storage immediately upon receipt of this card in duplicate. The original and duplicate cards must accompany records to storage.</p> <p>When records are received at the Cranberry Storeroom the duplicate card will be receipted and returned to the Department. The triplicate card will be forwarded to the Bayard Street Record Storeroom.</p> <p>DISPOSITION OF RECORDS</p> <p>If the records covered by this storage card are original records, and are covered by approved regulation tickets, the disposition of such records will be made pursuant to the approved regulations.</p> <p>Records prepared under the plan for protection of vital Company records will be disposed of in accordance with the plans of originating department and arrangements with the Filing Department for periodic substitution of new records for those on file.</p>

(8881)-D-70-10		C.G.E.L. & P. Co. of B.	Filing Dept.
REGULATIONS FOR PRESERVATION OF RECORDS			
PLEASE TYPE THIS FORM		Regulation Ticket No.	
Dept.	Dept.		
TITLE OF RECORD			
DESCRIBE PURPOSE OR USE OF RECORD:			
(Please use reverse side if necessary)			
IDENTIFICATION (State Briefly):			
P.P.C.	P.P.C.	Retention	
Class. No.	Class. No.		
Supplies details for what record?			
Is supported by what record?			
Does record originate in Department? If so, where are copies sent?			
If not, from whom is record received?			
COMPANY RETENTION		MANNER OF DESTRUCTION	
LOCATION:	Years	Months	
In Department			<input type="checkbox"/> Burn (at one of designated stations).
In Storage			<input type="checkbox"/> Mutilate and sell as waste paper.
Record Room			<input type="checkbox"/> Sell as waste - mutilation not necessary.
Freight Vault			
TOTAL Period to be retained			
Period of accumulation for storage:	years	months	
Period of accumulation for destruction:	years	months	
Signed: _____			
Department Head		Approved: _____	
Approved: _____		Date Approved: _____	
Assistant Secretary			

One of the most significant comments received was an excerpt from an article by Robert A. Shiff. Entitled "Protect Your Records Against Disaster," the article was published in the *Harvard Business Review* of July-August 1956 (page 80). The article stated:

"There is (also) one set of documents that should be created specifically for the contingency of disaster and protected above all others—assignments, powers of attorney, and legal authorizations required to reconstitute boards of directors, officers, operating committees, and so on, drawn from personnel at alternate locations.

"Usually, key executives and technicians cannot themselves be dispersed from the central office or plant, so documents specifying their substitutes must be dispersed instead. Otherwise the business may find itself without direction."

There seems to be general agreement respecting the manner in which vital information should be obtained for storage—namely, microfilming of voluminous data, and the use of extra copies of such items as operating reports, maps, engineering records, contracts and agreements, by-laws, and charter.

The records considered most essential, according to the check list included in the questionnaire, agree substantially with those in the list of records shown in the case study.

During the research, the Baltimore Gas and Electric Co.'s "Vital Records Program" was studied.

Here is a condensation of that program:

In 1950, a securities committee consisting of the assistant to the executive vice-president, the assistant secretary, the assistants to the general superintendents of gas operations and electric operations, and the head of the civil defense program were appointed by the utility's president.

At that time, the company had in effect a records protection program designed for (1) fire, flood and other ordinary hazards, (2) protection for insurance purposes, and (3) a records retention program to comply with the state and federal regulatory requirements.

In view of the international situation, the existing program and location of the storerooms in use were not considered as furnishing adequate protection of certain "vital" records.

Accordingly, a location was selected approximately 30 miles from the com-

pany's central offices. The building selected was of solid masonry construction. The space available in this fireproof building consisted of a room 34' by 24', and a mezzanine floor. Two rented Recordak reading machines are stored at the location.

The general approach to the problem was "to provide protection for only those records considered vital, that is, those records necessary to continue current operations such as the payment of bills and wages, the collection of money due, the reconstruction of accounting books and records, the protection of vital engineering and operating records, etc."

To set up the program, each of the company's 81 departments was requested to submit to the security committee a list of the records in the "vital" category—that is, those records considered necessary to continue current operations following enemy attack.

After the replies had been screened, subject to further review by the vice-presidents and certain other department heads, certain records originating in 31 departments were considered vital. They became the basis for the operation of the "vital records program."

The program was put into effect in May 1952, and by August 1953, except for minor items, it was in complete operation. By March 1954, all records considered vital had been transferred from the general storerooms and all of the 31 departments were on a current basis of reproducing vital data for periodic transfer to the vital storage room.

The actual cost to initiate the program was \$31,038, and the average maintenance cost has been approximately \$9,500 per year. This latter figure includes the salary of a custodian of the storeroom, the cost of microfilm, rental of two Recordak reading machines, and certain out-of-pocket expenditures for items such as printing forms. This does not include a service charge on the building, nor transportation charge for routine daily deliveries to the storeroom which are on an established route for other deliveries.

After the program had been in effect for about four years, each department head reviewed the records originally designated by him as "vital" for the purpose of "weeding out" records no longer considered "vital." Protection was granted to new vital records. As a result, only minor changes were made in the program as originally designed.

Records designated as "vital" which were retained previously under one or more of the other programs were transferred from the general storerooms to the vital storage area. When the retention period expires for vital storage purposes before expiration of the retention period required under one of the other programs, the records are returned to the general storeroom until the expiration of the latter period.

Should the latter expiration period

be reached while the records are in vital storage, upon expiration of the retention period, the records are returned to the general storeroom or the department from which such records originated, where they are destroyed. Destruction of records at the vital storage storeroom is made only in accordance with the plans of the originating departments, and arrangements are made with the filing department for periodic substitution of new copies, listings, or microfilm for those on file.

Microfilm is packed in the original cardboard container, which is properly marked as to its contents. The film is stored in cabinets or on shelving without additional wrapping. To date, the company has found it unnecessary to provide special humidified cabinets for the microfilm, as periodic tests have disclosed no unusual brittleness. The relative humidity of the geographic location of these records is generally higher than in other areas.

All records designated for transfer to the vital storage storeroom are sent to the mailing department of the central office building. The delivery truck is loaded at this point, and if delivery is not made before the end of the day, the truck is parked overnight in a company warehouse outside the target area.

A list of the departmental records accepted by the committee as "vital" for each of the 31 departments are shown in the subcommittee's original report. (The complete list may be obtained by writing to the Accounting Section, A. G. A. Headquarters.) The type of record stored is either the original, duplicate, or a microfilmed copy.

An important factor in the efficient operation of this program is the control maintained over the records at all times.

When the records are transferred to vital storage, a label is attached to each package which describes the record by title and assigned numbers, its location by aisle, bin or drawers, and its retention period.

When the records are temporarily withdrawn for reference purposes, a form is attached to establish its temporary location. The form requests the return of the record within three days unless other arrangements are made with the filing department.

When the records retention period has expired, or when it is superseded by a current replacement, two forms are used to insure its prompt removal from vital records storage.

Form 224 (see illustration) was designed to furnish a record of each item in storage. This is printed on card stock in triplicate. All copies are sent to the vital storage storekeeper for initialing. One copy is placed in the storeroom index file. Another is returned to the originating department as a receipt for the material. The third copy is sent to the company's general records storeroom where it is filed in chronological order according to expiration dates for retention in the vital storage storeroom.

It is the duty of the company's general storekeeper to notify the vital storage custodian when the retention period has expired for each record in vital storage.

Another form furnishes to the various department heads instructions pertaining to the frequency of which the described record shall be filmed, or when the original or extra copy shall be sent to vital storage. Also entered on this form is an approved regulation ticket number of the company's regulation (Form No. 695—see illustration) governing the retention of all company records.

A. G. A. nominates

(Continued from page 4)

INDUSTRIAL AND COMMERCIAL SECTION

For chairman—F. A. KAISER, vice-president and general sales manager, Michigan Consolidated Gas Co., Detroit, Mich.

For vice-chairman—L. J. FRETWELL, director, commercial and air conditioning sales, Oklahoma Natural Gas Co., Tulsa, Okla.

OPERATING SECTION

For chairman—J. T. INNIS, vice-president, Northern Natural Gas Co., Omaha, Neb.

For first vice-chairman—SAMUEL W. HORSFIELD, vice-president, Long Island Lighting Co., Garden City, N. Y.

For second vice-chairman—H. L. FRUECHTENICHT, director of gas procurement and development, Consumers Power Co., Jackson, Mich.

RESIDENTIAL GAS SECTION

For chairman—H. WILLIAM DOERING, manager, heating department, Springfield Gas Light Co., Springfield, Mass.

Most remarkable feature of gas industry is its continued rapid growth, A. G. A. President Wolfe says

Industry potent, financiers told

By J. THEODORE WOLFE

*President
American Gas Association
President
Baltimore Gas and Electric Co.*

Some of you may be puzzled that the chief executive of a company, two-thirds of whose revenues come from the sale of electricity, should be acting as spokesman for the gas industry. The fact is that the president of a combination electric and gas company is in a peculiarly good position to see the strong points, as well as the weak points, of both industries.

From my own observations, I believe that the strong points of each far outnumber the weak. It is easily possible for me, therefore, to represent the gas industry at the national level—and, indeed, to promote the gas business aggressively at the local level—without in any way slighting the electric industry or the electric business of my company.

The gas industry is a big industry. Measured in terms of total assets, it is now the fifth largest industry in the United States. To serve 32 million customers, the gas distribution and pipeline companies, at the end of 1958, had a gross plant investment of \$18.4 billion. During 1958, they took in revenues of \$4.6 billion. Yes, the gas industry is a big industry.

It is a complex industry, too. It consists of some 1,300 distribution companies, many of which are in the electric business as well, and 100 or more pipeline companies, some of which also pro-

duce and distribute gas, and manufacture petrochemicals; 7,000 or more producers, the principal ones of which are also in the oil business; about 600 gas appliance manufacturers, many of which also make electric and oil burning appliances; and some 4,000 distributors of liquid petroleum gas, not a few of which are in sharp competition with the electric segment of the business of some of our distribution companies. I am sure that this complexity must give the security analyst fits at times. You have to live with it to love it as I do.

Notwithstanding its already huge size and its complexity, the American gas industry is a rapidly growing industry. To me, this is its most remarkable feature. Here is an industry born in 1816, long past the age when most industries would have turned down hill or passed out of existence, now engaged in the most vigorous growth in its entire history. In just the past 10 years, the number of customers served by this industry has increased by nearly 40 per cent, the sales of its product have more than doubled, and its revenues have tripled.

No obit for gas

Several times during its lifetime, the more pessimistic observers have been ready to write the obituary of this great industry. There are those among the financial fraternity who even now seem to think it should be written; at least, I cannot get any other meaning out of their insistence on stringent sinking fund provisions for gas utility and pipeline bonds.

Always in the past, the gas industry has been able to laugh along with Sam-

uel Clemens, who responded to a premature printing of his obituary with the comment, "The reports of my death are greatly exaggerated." I hope to persuade this audience that anyone who tries, directly or indirectly, to write off the gas industry is hardly going to improve his standing as a reporter or as a prophet.

It might help to soften you at the outset if I tell you that 250,000 gas lights were sold in 1958, and that 500,000 will probably be sold this year.

The vigorous growth of the past 10 years was not just a one-decade phenomenon. The A. G. A. Bureau of Statistics, which I have found to be quite reliable in its prognostications, tells us that, by the end of 1970, we shall see a further growth in the number of customers served by the gas utility industry from last year's 32 million to nearly 44 million; over the same 12-year period, the amount of gas sold will go from 80 billion to 154 billion therms; our revenues will rise from \$4.6 billion to \$10.7 billion; and the gross plant investment of the distribution and pipeline companies will increase from \$18.4 billion, to \$49.3 billion.

Making due allowance for replacement of old plant, this increase of nearly \$31 billion in gross plant investment means that the industry will probably spend \$34 to \$36 billion on new construction, to be financed, roughly, one-third from internal sources and the other two-thirds by the sale of securities. In other words, the gas utility industry expects to market, during the 12-year period, some \$20 to \$24 billion of stocks and bonds.

Of course, any statistical projection
(Continued on page 26)

(An address delivered by Mr. Wolfe to the New York Society of Security Analysts on June 10.)



E. A. Brown (second from left) greets students and teachers at the Gas Air Conditioning School. Others (l. to r.) are Professor Paul J. Grogan, Robert H. Combs, John F. Moore (local chairman for the school), and Norbert K. Hall. School was held in Dallas



Two opening day speakers were F. Robert Moore (l.), A. M. Lockett and Co., New Orleans, La., and J. C. Conrad, Worthington Corp., Ampere, N. J.



The final day of school was a busy one for students. Lecturers were (l. to r.): Paul E. Chamberlin (chairman of the day), E. F. Davis, Ralph Crane, Robert D. Fink, Ralph H. Murray, Kermit J. Sonney, and Sewart Abbott. Copy of lectures are available



Charles C. Eeles (l.), chairman of the day, with school lecturers Watson Kennedy and M. Mayne (r.). Lecturers included direct

*Lectures cover most aspects of
air conditioning, including fundamentals and
specifications of various systems*

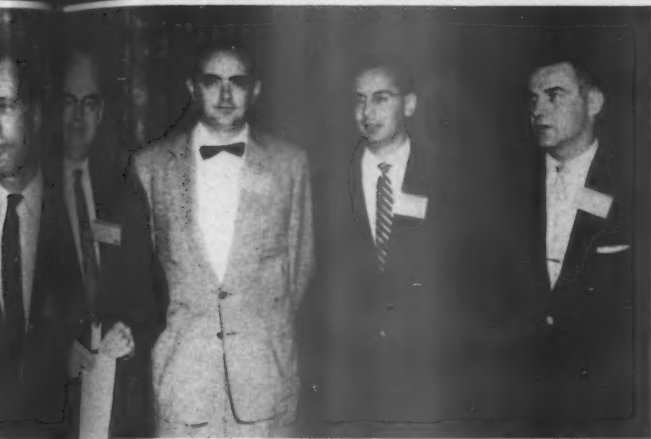
A. G. A. conducts first air conditioning school

One hundred and eight students from 27 states, the District of Columbia, and three Canadian provinces attended the Industrial and Commercial Gas Section's first Gas Air Conditioning Sales School, held during the week of June 1 at the Hotel Baker, Dallas, Texas.

The school was a project of the Air Conditioning and Heating Committee, of which Robert H. Combs of Oklahoma Natural Gas Co. is chairman.

Lectures covered most aspects of gas air conditioning, including the fundamentals of various systems, specifications of each of these systems, and engineering data.

One lecture dealt with the gas turbine, a new concept in prime movers for centrifugal compressors. An ideal direct use of gas for air conditioning, the turbine has given indications of offering marked economy in the higher tonnages. In addition, exhaust gases can be passed through a waste heat boiler for process or heating purposes.



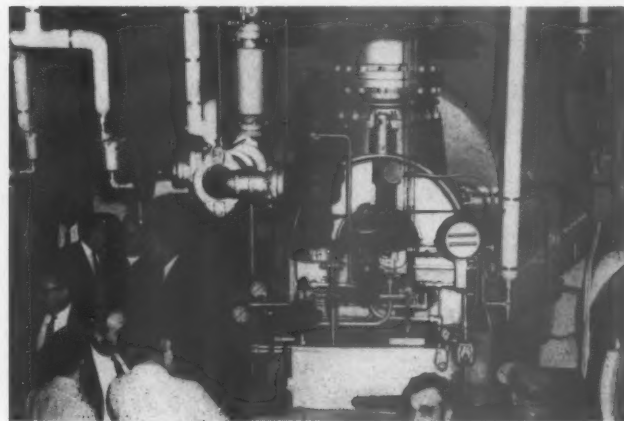
Lecturers at the afternoon session on June 2 included (l. to r.): F. M. [unclear], [unclear], Robert E. Roberts, William Antonachio, and C. P. Apitz. The school was a project of the A. G. A. Air Conditioning and Heating Committee



Lecturers served as a panel following each session to answer students' questions. Above are (l. to r.): A. B. Banowsky (chairman of the day), I. E. Rowe, Robert M. Wilson, G. Owen Kuhen, and John G. Reid, Jr.



Lecturers at the afternoon of June 4 were (l. to r.): F. L. McFadden, Jr., [unclear], W. Loosely, Edgar A. Jahn, W. Roger Sarno, and M. E. Orelup. School directed presentations included lectures on most aspects of gas air conditioning



Students left their classrooms for a field trip to visit air conditioning installations in the Dallas area. Here, students in the Dallas City Auditorium inspect a steam turbine driving a centrifugal compressor

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Other presentations were a series of four lectures involving comparative cost data, and a discussion of cooling tower cost estimation and the method of selection of the proper type of cooling tower for an air conditioning installation.

Following each session, the lecturers of the session participated as a panel in a question-and-answer period.

One day of the course was devoted to a field trip to several outstanding air conditioning installations in the Dallas area.

The students viewed the steam turbines and centrifugal compressors at the Dallas City Auditorium, which has a 1,500-ton air conditioning installation; the gas-driven engines (totaling 3,500 horsepower) at Alford Refrigerated Warehouse, which has 20 million cubic feet of refrigerated storage and one small area for -30° F. quick freezing; and Exchange Park, a 120-acre center which includes shopping facilities and a

hotel, and which has 12,000 tons of cooling equipment already installed—seven steam turbines, each of which drives a centrifugal compressor with steam supplied by five 50,000-#/hr gas-fired boilers—and additional equipment proposed for the future.

In addition to the guides at each stop on the tour, personnel from Lone Star Gas Co. were on hand to talk to the students.

During the course, there were also lectures on direct-selling subjects, such as marketing, market surveys, comparative costs, installation of central systems, and servicing.

H. Vinton Potter, vice-president, Oklahoma Natural Gas Co., one of the final speakers on Friday, told the students to take advantage of the current golden opportunity to sell gas air conditioning.

At the conclusion of the course, the students were given a chance "to examine" the school's staff and the com-

mittee. The answers to questions about the conduct of the school, the types of lectures desired, and which activities should either have been omitted or added will be of major assistance to the committee in the planning of a 1960 school.

A complete set of the school's lectures will be available soon from A. G. A.'s Order Department, 420 Lexington Avenue, New York 17, N. Y.

Two meetings planned

Two upcoming Section activities will be the sixth biennial Industrial Gas School and third annual A. G. A. Textile Symposium.

The Industrial Gas School will be held from Sept. 14-18 at the Penn-Sheraton Hotel in Pittsburgh.

The Textile Symposium is set for Sept. 28-29 at the Sedgefield Inn in Greensboro, N. C.

Industry potent

(Continued from page 23)

must be based on assumptions. There are four basic assumptions underlying our 12-year look ahead. They are the following:

- There will be a tremendous growth in the population of the United States.

- The standard of living in this country will continue to rise, and this will involve a continued increase in the per capita use of inanimate energy.

- Gas will more than hold its own in the popularity contest among various sources of inanimate energy.

- Gas will be available in adequate supply and at competitive prices.

I shall not spend time justifying the first two assumptions. Everyone accepts the fact that, in the absence of a nuclear or bacteriological war, we are in for a virtual population explosion. And most of the commentators agree that the average American, for other than recreational purposes, will continue to use more and more inanimate energy and less and less of his own animate energy. The only question is, what form of inanimate energy?

Let me repeat the third assumption: *Gas will more than hold its own in the popularity contest among various sources of inanimate energy.*

It is fairly well known that gas has tremendously increased its share of the total energy supply in this country during the postwar period—from something like 12 per cent immediately before World War II to 28 per cent last year. "But," I seem to hear you saying, "much of that tremendous increase came from the extension of natural gas pipelines into new geographic markets, thus making possible large volume sales of gas for industrial and space heating purposes." That is a correct observation. Since World War II, natural gas has swept the country and to such an extent that there is very little of the country left for it to sweep. Many of the ripe prospects who were awaiting the advent of natural gas are now revenue-producing customers.

It is interesting to observe, however, that the preponderance of gas industry growth in the last decade has represented intensive development rather than extensive growth. The absolute growth in demand for gas in established natural gas areas, such as the Appalachian re-

gion and the Southwest, has been substantially greater than growth in new markets. New markets take time to develop to their maximum, and major expansion of demand still lies ahead for those areas which received natural gas initially during the last 10 years.

Of course, one cannot expect a rate of growth in the future matching the rate of the past 10 years. And if you want to apply the compound interest tables to the projections I have given you, you will find that they do represent a slackened rate of growth. Our industry doubled its sales in the past 10 years; it may take 12 years to double them again. However, only the gloomiest observer would look on this as an indication that our arteries have begun to harden.

With much of the "heavy cream" gone from the top of the market, it will obviously take some real effort for the gas industry to maintain a rate of growth that will double sales in 12 years. I can assure you that such effort is being exerted. Part of the effort is being devoted to the development of improved equipment and new uses for gas, another part to cultivating the consumer's preference for gas.

I really get quite a thrill when I observe how much alive the gas industry has become to the need for developing new and better appliances. Historically, the industry has been a price-conscious one and, until very recent years, most of its efforts to sell gas and gas appliances had been based on their comparatively low cost. Now it is generally recognized that the buying public is less interested in price than in such things as cleanliness, coolness, convenience, modernity, and automaticity. While gas retains, in many areas, a price advantage over other forms of inanimate energy, most of the industry's development efforts—those supported through A. G. A.'s cooperative research program and those carried on by individual appliance manufacturers—are directed to the more whimsical demands of the buying public.

The present day gas range—with its automatically controlled oven, its automatic top burner heat control, its rotisserie and grill, its low Btu pilots and improved insulation which permit automatic ignition of all the burners while keeping the range cool, and its many other features—is a far cry from the prewar cookstove.

Clearly on the horizon is a domestic gas range in which the oven, when not

in use, will be concealed and, when brought into operating position by the wave of a hand, will bake a cake of superior texture in half the usual time by the application of radiant heat above and gentle heat below—a range with foldaway top burners which, in themselves, will be "flameless" and powered with natural gas fuel cells.

Among the many other new and important appliance developments brought about through cooperative research and the efforts of individual manufacturers are the following:

- The smokeless-odorless incinerator, developed successfully to meet the requirements of air pollution ordinances and now on the market, where it is being enthusiastically received.

- Automatic water heaters which produce twice as much hot water in an appliance of the same size and produce it cheaper than can be done by any competitive appliance.

- A new gas refrigerator, to be on the market next year, which will hold its own with the electric refrigerator on initial price, convenience features and performance, and will offer the customer a definite saving in operating cost.

- A new gas furnace, still in the research stage, containing its own thermoelectric gas-fueled generator of sufficient capacity to operate the controls and warm air blower or circulating water pump.

- Gas fired air conditioning units, either as part of the year-round heating, cooling and humidity control system, or as an add-on unit to be installed in conjunction with a separate heating system.

Because of its great and profitable potential, gas air conditioning is a subject close to my heart. During the summertime, when electric utility systems are already groaning under the burden of peak loads brought about by air conditioners, vast quantities of natural gas, available at low incremental costs, can be sold for cooling purposes without adding a single dollar to the gas utility's investment in distribution facilities.

It is this obvious fact that has led the gas industry—through A. G. A.'s cooperative research program and through the individual efforts of such manufacturers as Arkla-Servel, Carrier's Bryant division, the York division of Borg-

(Continued on page 35)

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The Pacific Northwest Goes First Class with NATURAL GAS



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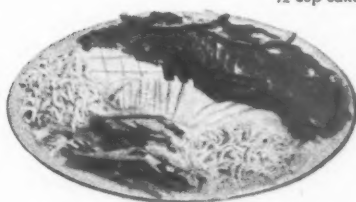
SUKIYAKI... Bush Garden's specialty, prepared at your table over a NATURAL GAS burner



MR. SEKO'S SUKIYAKI (serves 8)

2½ pounds sukiyaki beef strips
Suet, as required
1 small can bamboo shoots
4 bunches green onion in 1½" lengths
3 large dry onions, sliced
1 small can yam noodles
(Optional: 4" cube soy bean cake,
1 can mushrooms, 2-3 stalks celery,
handful bean sprouts, garnish
of green pepper.)
SAUCE: 1 cup soy sauce, 1 cup water,
½ cup sake (rice wine), 3 tbsps. sugar

Slice vegetables. Slice beef
(from the "eye" of prime rib)
into ½" strips. Prepare sauce
in separate container.

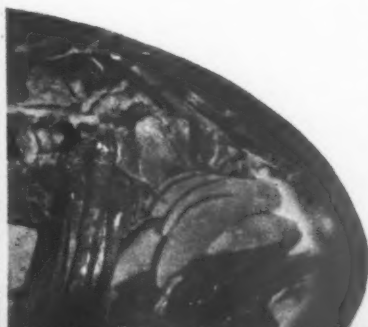


Place bamboo shoots, onions
and noodles (plus optional
ingredients, if used) in cook-
ing utensil. Spread meat
evenly over vegetables. Add
enough sauce so ingredients
are half submerged.



Now, prepare fluffy white rice
by your favorite method.

Put sukiyaki on gas burner
and allow to simmer, un-
covered, until meat is ¾
done. Mix entire content
with chopsticks and turn
heat off. Let stand 3-5 min-
utes before serving. (Meat
will continue to cook during
that time, so will be well
done when served.)





For baking, frozen food processing—and family cooking, the choice is Natural Gas



World's largest French Bread oven, (above at left), in Gai's French Bakery, Seattle, bakes 4500 mouthwatering, golden brown loaves of bread an hour! Its 61 feet of length and 14 feet of width are heated to 400° temperatures with 54 natural gas burners. Temperatures must be uniform; heat must be fast, clean, sure, economical. No wonder more and more Northwest bakers are switching to natural gas!

Birdseye division of General Foods in Walla Walla prepares choice asparagus for freezing (above right). Garden fresh spinach, peas, carrots, mixed vegetables and mixed fruit are also process-controlled best with natural gas in this huge frozen foods plant.

Moist baking, smokeless broiling, 1001 cooking speeds, carefree controllability, delightful results: no wonder the Bill Duer family of Yakima chose a gas kitchen!

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For draft-free comfortable warmth—tempting good food—
fine restaurants use Natural Gas

Bush Garden, internationally famous Japanese restaurant whose delicious and exotic dishes lure Seattleites and visitors by the hundreds each evening, uses Natural Gas to cook sukiyaki "on table" directly in front of hungry guests' eyes. Natural Gas is also used to heat Bush Garden — so stocking-footed guests (Japanese style) keep comfortably warm from head to toe.

Pierce Harbottle, owner of Zep Inn, Spokane, readies two tempting steaks for the gas-fired charcoal broiler. Gas-Glo lighting lends an atmosphere of enchantment and romance to the scene, befitting to this inn famous for its good food.



Like Portland's other fine dining places, the Hotel Benson finds natural gas best for preparing its epicurean meals. At right, Portland's Charles Gueffroy and TV's Miss Julia Meade await their steak and shish-ke-bob in the Benson's famous London Grill — one of the favored dining spots for Centennial visitors.



Northwest Restaurants Go First Class With Natural Gas



This 8-page advertisement reprinted from the July 1959 issue of Sunset Magazine



From thin, separate layers of wood to structurally strong $\frac{5}{8}$ " plywood in just $6\frac{1}{2}$ minutes! That takes hot heat — fast! Simpson Logging Company's Olympia plant, above, uses dependable Natural Gas to supply the constant 285° heat required for its 450-ton "hot press."

Natural Gas provides uniform, healthful heat to plants in many Northwest home greenhouses like Mrs. Ralph Gibson's, Boise, Idaho. Forrest Averill, with son Allen in their large commercial nursery at Snohomish, Washington, prefers controllable, constantly uniform, always clean Natural Gas heat to the 4 other fuels used during 45 years as a professional nurseryman.

In plywood plants and paneled living rooms... in home and commercial greenhouses... natural gas is preferred



The G. F. Skipworth home in Yakima is beautiful, modern — and all-gas. Warmth is carefree, even, clean; hot water abundant. "Cooking with 1001 instantly controllable speeds... delightful!"





No cleaner, purer heat than Natural Gas

**IN HOSPITAL NURSERIES AND HOME
NURSERIES, NATURAL GAS HEAT PROTECTS
NEW BABIES' HEALTH AND HAPPINESS**

Wherever natural gas is available, Pacific Northwest hospitals have selected gas for spotless cleanliness and hospital purity. Virginia Mason Hospital is one of 11 Seattle hospitals now using modern natural gas heat.

Clean, cozy quarters for Baby are a "must" in the Spokane home of Mrs. Yvonne D. Wilson. In an all-gas home, whether Baby is on the floor, in a crib, in kitchen, bath or nursery, Natural Gas provides spotlessly clean, constant, draft-free warmth.



Northwest Hospitals and Homes Go First Class With Natural Gas





Family and friends enjoy the W. L. Hansen pool (left) in Yakima for a longer swim-season: gas-heated water is always comfortably warm.

Many luxury motels, such as the magnificent "Thunderbird" in Boise (below), are all-gas equipped — including gas-heated water for the pool.



Wherever heated water is required, Natural Gas proves best



R. A. Smith unloads gas dryer-conditioner at Kelly's Yakima Laundry. Scores of commercial laundries eagerly awaited natural gas, quickly had it installed for its 3-times-faster hot water; fluffy-soft, color-bright drying.



Mrs. Murray W. Burns, helped by daughter Carol, prefers modern, natural gas method of laundering: lots of hot water, fresh-sweet drying. Her Boise home is all-gas-equipped.

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Companies and co-eds agree: "The Pacific Northwest goes first class with Natural Gas!"



Buyers select the summer's smartest in swim and playwear at famous Jantzen Inc., Portland. An international leader in a highly competitive field, Jantzen accurately forecasts — then creates — the style and color favorites of tomorrow's fashions. This progressive, forward-looking company uses natural gas both for heating and for steam processing. Clean, economical, dependable natural gas — a modern fuel for a modern plant.

Many universities and colleges throughout the Northwest are joining the trend to natural gas for heating and laboratory processes. Sweater-clad (Jantzen, of course!) co-eds Frances Stockdale and Charmaine Dietz, University of Idaho students, find comfortable study climates in lab, library and other new buildings on this Moscow, Idaho, campus.














The Northwest Goes First Class With Natural Gas





THESE COMPANIES DISTRIBUTE NATURAL GAS IN THE NORTHWEST

-  California - Pacific Utilities Company
-  Cascade Natural Gas Corporation
-  City of Ellensburg
-  City of Moses Lake
-  Columbia Gas Company
-  Eastern Oregon Natural Gas Company
-  Intermountain Gas Company
-  Northwest Natural Gas Company
-  Pacific Natural Gas Company
-  The Washington Water Power Company
-  Washington Natural Gas Company

Leading Pacific Northwest industries, hospitals, motels, businesses prefer Natural Gas

In the 2½ years since the arrival of Natural Gas to the Pacific Northwest, acceptance of the new fuel has been overwhelming. Gas distribution companies are constantly laying new mains to keep up with demand as thousands of industries, businesses, hospitals, hotels, restaurants, home builders and home owners begin using this modern fuel. To put natural gas to work for you call the gas company that serves the area in which you live. If natural gas is not yet available in your area, call your propane dealer.

Plan to see Portland's CAMEO HOME—the fabulous new all-gas home with the astounding "SERVAMATIC" RCA Whirlpool gas range—during Oregon's 100-Day Centennial Exhibition, from June 10.



PACIFIC NORTHWEST PIPELINE CORPORATION

Industry potent

(Continued from page 26)

Warner Corp., A. O. Smith Corp., and others—to invest substantial sums in the development of various types of gas air conditioning equipment. The gas air conditioner is a reality today, and will be a mass consumer item tomorrow.

I said that another part of the industry's effort to maintain a healthy rate of growth was being devoted to cultivation of the consumer's preference for gas. A. G. A. alone, through its cooperative program of promotion and advertising, is spending more than \$6 million at the national level, five times what it was spending in 1952. In addition to magazine print advertising and the various cooperative promotional programs, A. G. A. undertook two years ago the sponsorship of a national television program.

Either by good fortune or by the exercise of great perspicacity, the responsible committee chose *Playhouse 90*. Except for those rare occasions when we receive brickbats for a poor or controversial program over which we, of course, have no control, we have never been sorry. *Playhouse 90* has gained outstanding prestige, and it has produced for the gas industry a strong sales impact which has been measured periodically by testing the trend of consumer preferences among viewers and non-viewers of the program.

A less scientific but equally persuasive indication of its success is that the Edison Electric Institute has undertaken for the first time this year the sponsorship of national television, along with a print advertising program. Our sponsorship of *Playhouse 90* will continue next year.

Of course, it would be a mistake to leave you with the impression that A. G. A.'s expenditure of \$6 million a year, including \$3.5 million for *Playhouse 90*, represents the industry's entire effort to cultivate the consumer's preference for gas. As nearly as I could determine, gas appliance and equipment manufacturers are spending \$10 million a year, and the gas utility companies at the local level are spending enough more to give the industry a total sales and promotional effort of \$100 million a year. And I believe the consumer's preference, in many respects at least, is being cultivated for gas.

The fourth important assumption underlying our projection of continued vigorous growth was that *gas will be avail-*

able in adequate supply and at competitive prices. Let's take a look now at the supply of natural gas.

Those of you who are faithful readers of A. G. A.'s releases know that we have a very important Committee on Gas Reserves, which painstakingly develops authentic information from confidential reports on the amount of recoverable gas known to be in the ground at any given time, and the amount produced each year. The Committee advises that the proven reserves of natural gas in this country, at the end of 1958, were 254 trillion cubic feet, and that the production during 1958 was 11.5 trillion cubic feet.

Now, please, do not make the mistake, which some have made, of dividing 254 by 11.5 and concluding that our natural gas supply will last only 22 years. The figure of 254 trillion cubic feet by no means represents our total gas supply. It is only the working inventory which we have "on the shelf." To point this up, let me remind you that, in 1945, we had proven reserves of less than 148 trillion cubic feet; since then, we produced 109 trillion cubic feet; at the end of 1958, however, we had proven reserves of 254 trillion cubic feet. Each year, notwithstanding increasing volumes of production, we have added to our proven reserves, and we have increased the amount of inventory "on the shelf."

Total supply unknown

No one really knows what our total supply of natural gas is. The United States Bureau of Mines rather conservatively estimates it at 1,000 trillion cubic feet, or four times the amount of proven reserves at the end of 1958. Other experts say it is anywhere from 1,200 to 1,700 trillion cubic feet. And this is for only 48 of the states in the country; it does not count Alaska, where large quantities of gas are believed to exist.

Nor does it count the vast unproven reserves of Canada and Mexico—which could be made available to us if the necessary economic and political relationships were worked out—or the tremendous possibilities inherent in the shipment by ocean-going tanker of liquefied natural gas from the Caribbean or the Middle East.

Without posing as a geological expert myself, I firmly believe that there is plenty of natural gas available to keep our industry going at an ever accelerated pace until long after you and I and our

children and grandchildren have passed away. The only questions are How do we get it? and At what price?

To me it seems axiomatic that we shall get the gas we need to keep on growing only if those who hunt for it and produce it are given sufficient economic incentive to apply their time and money to the effort. This does not mean that I favor exempting field prices of natural gas from federal regulation. It means that I favor a form of regulation which recognizes that the discovery and development of natural gas reserves is not a public utility function and cannot successfully be dealt with as such, but which also recognizes that most of our gas is produced by people whose primary concern has been the production of oil, and that the distributors need some assurance that gas will not be priced out of its market.

Now, I have no pat solution to this question of how to regulate field prices so that producers will have the economic incentive to find and deliver the gas we need and still keep its price competitive. But I do not think one has to be too much of an optimist to assume that a solution will be found. In this country, we kick things around and we mess them up pretty badly sometimes, but we always do what we have to do. Producers, pipeliners, and distributors of gas are all beginning to realize that we have to work out this problem, which is of fundamental concern to the entire gas industry.

Under the leadership of A. G. A., we have begun this year a series of informal conferences attended by representatives of all segments of the gas industry. In these conferences, we are seeking to develop a better understanding of each other's problems. Out of that understanding may come an answer to the question of how to get the gas we need at a competitive price.

Of course, I am ready to concede right now that the average field price of natural gas is bound to increase from its present level, since the present average price of 12 to 13 cents per Mcf is heavily affected by some very low contract prices established when gas was primarily a by-product. There is some reason to believe, however, that recent prices in new contracts may represent a level at which exploratory and developmental activities can be supported for some time to come.

(Continued on page 38)

50,000 visitors see A.G.A. exhibit



The new Keating full muffle oven was unveiled by A. G. A. at restaurant show



Closed-circuit TV supplied close view of charts and equipment to millions of visitors

A combined Commercial Gas Exhibit, sponsored by the Industrial and Commercial Gas Section, was a highlight of the National Restaurant Association's 40th annual National Restaurant Exposition, held during the week of May 11 at the Navy Pier in Chicago.

In addition, A. G. A. reported to the meeting's 3,000 delegates on several research projects sponsored jointly by the Association and the research committee of the restaurant group.

Hayes Walter, A. G. A. commercial promotion manager, described some of the accomplishments of, and showed the equipment which resulted from, this research. He used closed-circuit television to explain details of the equipment and to show flip charts.

Mrs. Gertrude Allison Brewster, pro-

prietor of Olney Inn, Olney, Md., and a director and member of the research committee of the restaurant association, joined Mr. Walter to unveil a new oven which may "revolutionize" commercial baking and roasting. Richard T. Keating, Keating of Chicago, who developed the oven, adapted the industrial furnace to the commercial baking and roasting applications.

The oven circulates heated air at high velocities, keeping the temperature within the oven uniform and effecting a vastly increased rate of heat absorption by the food by means of a rapid movement of heated air over all food surfaces. Because this muffled oven is completely sealed—it has no vent or opening—no outside air currents can enter

or pass through.

Mr. Walter described some of the technical aspects of this oven and explained how a uniform temperature is maintained by the high velocity hot air. He said that a layer cake can be baked in 16 minutes, instead of 30 minutes, as in the past; that 45 nine-inch layer cakes can be baked at one time, even though they are close together, because of the even temperature; that biscuits can be baked in just seven minutes, or at the rate of 80 dozen per hour; and that roasted meats retain more juices.

Many new appliances were included in A. G. A.'s display, which was viewed by some 50,000 visitors and was the largest exhibit at the exposition.

Fifteen manufacturers participated in the A. G. A. exhibit. In addition, sev-

eral other manufacturers maintained separate displays of gas equipment.

The manufacturers which cooperated in A. G. A.'s exhibit were the following:

Anetsberger Brothers, Northbrook, Ill., which showed counter models of open top sections, griddles, fryers, and broilers, and a floor model of a fryer.

Arkla Air Conditioning Corp., Shreveport, La., which—for the first time at a restaurant show—displayed outdoor gas lamps, suitable for exterior

which had a large exhibit of its Universal Chef (formerly Magic Chef) heavy duty equipment.

Duke Manufacturing Co., St. Louis, which displayed several models, including portables, of warm food tables.

B. H. Hubbert and Son, Inc., Baltimore, which showed steam-jacketed kettles, some of which were self-gas-fired and others of which were designed for connection to an outside source of steam supply, and several counter models.

from the burning fat which drips on the radiant ceramics.

Robertshaw-Fulton Controls Co., Youngwood, Pa., which displayed a variety of controls suitable for use on commercial cooking equipment.

South Bend Range Corp., South Bend, Ind., which showed a number of tops, including grate top sections and a unit featuring a 10-burner top and two ovens.

Suburban Appliance Co., Whippany, N. J., another newcomer, which exhibited a commercial infra-red rotisserie



Walter and Gertrude Allison Brewster discussed cooking equipment



An exhibit of attractive outdoor gas lamps decorated lounge area at the show

decorative lighting of restaurants, and a Sun Valley air conditioning unit.

Cecilware-Commodore Products Corp., New York, which exhibited coffee urns, counter equipment, and portable warm food carriers.

Cleveland Range Co., Cleveland, which showed Steam-Chef and Steamcraft pressure cookers, some of which were equipped with self-contained gas steam generators and others of which required connections to building steam.

Comstock-Castle Stove Co., Quincy, Ill., another newcomer to the exhibit, which displayed a four-burner griddle, broiler, and oven unit; a six-burner model; a 10-burner, two-oven model in stainless steel; a double oven; and a counter griddle.

Cribben and Sexton Co., Chicago,

Kewanee Industrial Washer Corp., Kewanee, Ill., which exhibited and operated various sizes of its washers, in order to demonstrate the complete agitation of the wash water.

Magic Gas Ray, Inc., Cleveland, another newcomer, which demonstrated floor and counter model broilers equipped with the new Schwank Burner, and served strips of broiled steak to the visitors to the booth.

Martin Oven Co., Inc., Rochester, which showed a two-deck and a three-deck oven, both in stainless steel.

Mid-Continent Metal Products Co., Chicago, which demonstrated its Hearth Broiling equipment and served samples of broiled chopped beef and steak. The broiling equipment features a blower which practically eliminates the flames

—equipped with a Schwank burner and able to roast or broil meats on revolving spits in much less time than a conventional broiler—and a gas thermo food storage unit which keeps foods at the right temperature for serving.

Garland Range Division of Welbilt Corp., Maspeth, L. I., which showed four heavy duty units, including open top, hot top, and fry top sections, with an oven below; a broiler; restaurant-type ranges; and a deep fat fryer.

During the restaurant show, the annual Food Service Contest awards were presented by *Institutions* magazine. Gas equipment was used by 65 per cent—a record—of the 46 winners, or for four out of the seven first awards, nine out of the 17 merit awards, and 17 out of the 22 honor awards.

Industry potent

(Continued from page 35)

New techniques and new materials used in exploring for and producing gas are helping to offset the otherwise rising trend of costs as wells go deeper or farther offshore. It is worth noting, too, that many of the same factors which tend to make gas prices rise also affect the prices of competing energy sources. It would be foolish of me to make a precise prediction but I do have a conviction that we shall have the gas we need at prices which will sustain our growth projection.

I have been told that one should not conclude a talk to security analysts on the long-range future of the gas industry without saying something about the possibility of developing synthetic gases to supplement our supply of natural gas. I hesitate to do so, for fear of casting doubts on the availability of natural gas. You may as well know, however, that the gas industry, through its cooperative research program, is working on substitute gases, primarily at the Institute of Gas Technology. This is quite a long-term project—indicating that we really do look ahead—and significant progress has been made.

It has already been demonstrated that synthetic gas can be made from coal. Major progress has also been made on both the methanation and the hydrogenation processes. They have been developed to the point where production is known to be feasible, although the cost would be somewhat higher than that of natural gas at the present time.

Initial research on oil shale and tar sands has been even more encouraging. Apparently both of these energy sources, which are abundantly available, can be gasified at substantially lower cost and with far fewer technical problems than coal. Furthermore, there are indications that shale—even the poorer quality shales of the Midwest and Appalachian areas—can be converted to gaseous fuels more effectively than to liquid fuels. I am sure you will hear significant news about shale research in the not too distant future.

Frankly, I think it will be a long, long time before our supply of natural gas will need to be supplemented by substitute gases. But for those who like to worry about their great-great-grandchildren, it may be comforting to know that, when that day comes, the gas industry expects to be ready with full-scale pro-

duction plants, doubtless located on or near the existing major pipeline systems. Meanwhile, the known possibility of producing synthetic gases may serve as an important factor in controlling the price of natural gas.

You may suspect by now that I am just a bit bullish on the future of the American gas industry. If so, your suspicion is well founded. We may wander off into dreamland thinking about the possibilities of the solar battery or the nuclear power pill, but I doubt if they are as great, even in dreamland, as the possibilities of the gas fuel cell. And when we come back to reality, taking into account such practical considerations as customer investment, customer safety, service reliability, and operating costs, we find that the transmission and distribution of gas through a system of pipes is still just about the most efficient means we have of getting usable energy into the customer's home. It is for that basic reason that I think the gas industry has a future every bit as great as its past.

PEP drive

(Continued from page 12)

and for implementation and over-all performance in the 1959 campaign. The latter is considered to be the contest's top award.

Companies may participate in any degree—from a mild step-up of the regular sales activity, to a comprehensive campaign that will cover the entire service area.

Past records show that many companies participating in the campaign have increased sales of commercial cooking equipment considerably, some as much as 400 per cent.

The A. G. A. PEP portfolio will outline plans for an entire campaign. It is produced in such a manner that companies may use all, or a part of the program, whichever best suits local conditions. It includes suggestions for initial meetings, the "kick-off" dinner, sales education meetings, direct mail selling tools, demonstrations, and a suggested planning calendar and report forms designed to help the company keep track of campaign progress.

Also included are other sales aids for gas companies, dealers and dealers' salesmen.

The "promotional material" section

offers a variety of promotional material and provides flexibility of use for any degree desired.

As in past years, campaign demonstrations will perform a valuable service. There are manufacturers of bakers' supplies and equipment manufacturers who are anxious to conduct demonstrations under gas company sponsorship. The demonstrations usually are given for volume feeding operators. It is advisable to invite dealers and dealers' salesmen to these demonstrations.

Safety

(Continued from page 19)

Customer Service Operations," D. L. Drake, assistant superintendent, gas and steam distribution, Baltimore Gas and Electric Co.; "Safe Practices in Distribution Operations," J. H. Heil, superintendent, central district distribution, Peoples Gas Light and Coke; and "Safe Practices in Transmission Operations," A. L. Roberts, vice-president-operations, Texas Gas Transmission Corp., and Rex V. Campbell, general superintendent, American Louisiana Pipe Line Co.

According to Marvin Travis, director of safety, Northern Natural Gas Co. and chairman of A. G. A.'s Accident Prevention Committee, the conference will feature a bonus—a Safety Material Exchange Display.

Facts and Figures

(Continued from page 13)

1958. The index of industrial production (1947-1949 = 100) for April 1959 was 150, up 24 points over April 1958. A. G. A.'s index of gas utility and pipelines sales was 258.0 (1947-1949 = 100).

During the 12 months ended April 30, 1959, total utility and pipeline sales aggregated 82,535 million therms, equivalent to an increase of 4.5 per cent over the 78,975 million therms consumed in the 12 months ended April 30, 1958.

Canadian expenses forecast

NATURAL GAS UTILITY companies in Canada are expected to spend more than \$114,700,000 during 1959 on installations of new services and additions to existing services, according to the Canadian Gas Association. The figure includes the \$13,500,000 to be spent by Trans-Canada Pipelines, Ltd., on four new compressor stations and 15 metering stations.

We must accept responsibility of guaranteeing customers a continuous supply of gas, Production Conference told

Cite need for gasification process

Some time in the future, the gas industry will need a gasification process which will enable it to add synthetic gas to the natural gas then available. Research is now underway to perfect such a process, according to R. E. Ginna, chairman of the board, Rochester Gas and Electric Corp., who addressed delegates to the A. G. A. Operating Section's Production Conference. The annual meeting was held from May 25-27 in Rochester, N. Y.

Mr. Ginna, in an address at the opening session, warned that the gas industry can expect to experience a substantial increase in the cost of recovery of natural gas because of more expensive drilling operations and the depletion of large production wells.

"We must accept the responsibility of guaranteeing our customers a continuous supply of gas at a reasonable cost. This supply must be available at all times, regardless of weather conditions," he said.

Mr. Ginna added that the industry has a responsibility to prolong the economic supply of gas, in order to protect its customers' investments in gas appliances and equipment.

He also said that the production man must improve the industry's peak shaving and emergency, or stand-by, production processes, in order to insure the most economical operation possible. "The future prosperity of the industry will be, to a large extent, in the hands of the production and chemical men," he added.

Some 300 delegates attended the three-day session, which was sponsored by the Chemical and Engineering Committee and the Manufactured Gas Production Committee.



Addressing the Monday general session of the Production Conference were (l. to r., standing): A. H. Wicht, Hugh T. Maloney, C. L. Pendleton, Dr. Minor C. K. Jones, and D. K. Taylor. (l. to r., seated): Peter Barry, R. E. Ginna, and Samuel W. Horsfield



Speakers who addressed the Wednesday morning general session were (l. to r., standing): William F. Morse, D. A. Dundore, and Richard E. Hough. (l. to r., seated): F. J. Pruks, R. L. Coryell, and C. M. Springer. The meeting was held from May 25-27

The manufactured gas production session heard these speakers (l. to r.): Dean B. Seifried, S. A. Symonski, A. Russell Young, J. M. Reid, H. C. Jones



The Rochester Gas and Electric Corp.'s women's chorus sang for delegates during a dinner given at the utility's employee center



Addressing the fluid fuels session on Monday were (l. to r.): A. A. Lehman, J. L. Turnan, W. E. Tate, George L. Bixby, D. A. Dundore, and C. F. Mengers

Hugh T. Maloney, Philadelphia Gas Works, division of The United Gas Improvement Co. (UGI), and chairman of the Manufactured Gas Production Committee, presided at the opening session.

Besides Mr. Ginna, opening session speakers were S. W. Horsfield, Long Island Lighting Co., and second vice-chairman of the Operating Section; The Hon. Peter Barry, mayor of Rochester, and director of safety for Rochester Gas and Electric Corp., who welcomed delegates to the city; C. L. Pendleton, New England Power Service Co.; D. K. Taylor, Connelly, Inc., and chairman of the Builders' Subcommittee; A. H. Wicht and Irving Deutsch, Long Island Lighting; and Dr. Minor C. K. Jones, Esso Research and Engineering Co.

A report on Section activities was delivered by Mr. Horsfield, who also presented six committee service awards.

George G. Dormer, The Manufacturers Light and Heat Co., received an award for serving as chairman of the

1958 Chemical and Engineering Committee. In addition, engraved certificates for the completion of three terms as committee chairmen were presented to E. O. Rossbach, The Brooklyn Union Gas Co., past chairman of the Subcommittee on Odorization of Gas; Hermann Laudani, Mystic Valley Gas Co., past chairman of the Subcommittee on Gas Conditioning; H. W. Gee, Hasche Engineering Co., past chairman of the Builders' Subcommittee; B. J. Clarke, The Columbia Gas System, Inc., past chairman of the Subcommittee on Gases from Solid Fuels; and E. D. Crouch, Long Island Lighting, past chairman of the Subcommittee on Gases from Fluid Fuels.

Mr. Pendleton outlined some suggested safe practices for stand-by plant operations. He said that, as long as a stand-by plant is capable of functioning, it represents a financial asset, and that, as such, its capabilities should be guaranteed by preventive maintenance.

"The stand-by plant differs from the shut-down plant, because the former must be able to start operation on short notice," he said. He recommended that a regularly scheduled inspection of apparatus and equipment be made.

The report of the Builders' Subcommittee was given by Mr. Taylor.

A paper which drew considerable interest was the joint report by Messrs. Wicht and Deutsch on "Factors Affecting the Stability of Odorants in Gas Mains." The paper outlined the practices now in effect at Long Island Lighting.

In the final presentation at the opening session, Dr. Jones reviewed a number of areas of mutual interest in the oil and gas industries, and explained ways in which each industry can benefit from this mutual interest.

Two sessions were held on Monday afternoon. Four panel discussions made up the fluid fuels session; four papers were presented at the odorization session.

C. F. Mengers, Philadelphia Electric



Participants in the manufactured gas production planning session were (l. to r., seated): Dr. M. A. Elliott, R. B. Rosenberg, M. T. Keil, D. B. Seifried, and K. B. Nagler. (L. to r., standing): D. V. Buchanan, James McConville, R. J. Sweitzer, A. Russell Young, and H. W. Wills



Chemical and engineering session speakers were (l. to r.): P. L. Covell, Arnold Doyle, Norman Wiederhorn, J. A. Knell, D. V. Kniebes, Arnold Wexler, L. M. Van der Pyl, and D. F. Cundari. Conference was sponsored by the Chemical and Engineering and Manufactured Gas Production Committees

Co., presided at the fluid fuels session. The alternate chairman was D. A. Dundore, Philadelphia Gas Works, division of UGI.

The opening session concerned "Progress in Accident Prevention." H. T. Jayne, Philadelphia Gas Works, division of UGI, was the moderator. Panelists were Mayor Barry and Messrs. Crouch and Pendleton.

Mayor Barry discussed safety as it concerns management, Mr. Crouch discussed safety from the standpoints of the operating man and the engineer, and Mr. Pendleton listed a number of aids that can be helpful in employee safety training.

Gordon J. Calderwood, Rochester Gas and Electric, moderated a panel on "Experience with New Light Distillate Feed Stock." Participants were J. W. Davis, Rochester Gas and Electric; U. C. Fleming, Jr., The Connecticut Light and Power Co.; Kenneth Lydecker, New Jersey Natural Gas Co.; Walter Rosen-

garten, Jr., Philadelphia Electric Co.; Robert Kyle, Commonwealth Services, Inc.; and Messrs. Laudani, Gee and Dundore.

Mr. Kyle commented on the extensive experience gained from using naphtha in a twin generator oil-gas set in order to produce 1,000 Btu of a natural gas substitute.

The other panelists spoke about the use of hexane-heptane fraction, which is available from Sun Oil Co. and is marketed under the name "H" fuel.

"Experience with Checkerbrick" was discussed by a panel moderated by George L. Bixby, Consolidated Edison Co. of New York, Inc. Panelists were Mr. Dundore, A. A. Lehmann, Baltimore Gas and Electric Co.; W. E. Tate, Brooklyn Union Gas; and J. L. Turnan, Worcester Gas Light Co.

Mr. Tate traced the history of checkerbrick design at Brooklyn Union's Greenpoint Works. He explained the 11 evolutionary steps from the original 1952

design to the present basketweave pattern, and compared costs and outlined the reasons for each change.

Mr. Bixby described tests of carborundum checkerbrick and six substitute fire-clay bricks. The tests were conducted at Consolidated Edison's Astoria plant. Of the six substitutes—Superac, Korundal, Moldit HT, Anchor Dash, Maximal, and J B Coarse—only the last showed promise. Each was arranged in a basketweave pattern.

Mr. Dundore reviewed tests made at the Philadelphia Gas Works in order to determine whether the basic cause of silicon carbide deterioration was thermal shock, oxidation, carbon deposition, or vanadium attack. He said that Refrax B, A-2040-7, A-3233-2, Carbofrax M, and re-fired ES 2 soaps were tried against the standard A-978 mix. None proved superior to the standard mix, he said. He also noted that thermal shock was found to be the principal cause of failure.

(Continued on page 50)

Pipeline automation, remote control hold Transmission spotlight



Speakers at the May 18 session were (l. to r., seated): R. V. Campbell, H. C. Jones, Douglas Ball, D. E. York, and J. T. Innis. (l. to r., standing): D. P. Corkill, H. M. Joiner, L. R. Kirk, J. E. Wallace, and J. G. Barnhart. Group met from May 18-19



Participants during the May 18 symposium on communications and tele-control included (l. to r.): E. Wylie Head, J. S. Fouch, F. Vinton Long, who served as moderator, Max M. Levy, and M. D. Shriver. The symposium was part of the Transmission Conference

Gas industry progress in pipeline automation and remote control held the spotlight May 18-19 when nearly 400 engineers met in Dallas for A. G. A.'s annual Transmission Conference.

Delegates attending the first general session were told that the industry is making increased use of automation to help meet ever-growing gas demands in the face of stiffer competition, rising wellhead costs, and mounting operating expenses.

This analysis was presented by D. E. York, United Fuel Gas Co., who predicted that "computers, centralized billing, supervisory control, telemetering and automatic compressor stations will become commonplace in the gas industry during the next decade."

Stating that microwave radio can provide the circuits necessary to do a multitude of pipeline jobs, he said, "Anything that can be converted to an electrical signal can be sent great distances by microwave.

"With microwave," he continued, "we can start, stop, slow or speed unattended equipment, open or close valves, record vital operating information, and perform all types of supervisory functions. We can direct various activities at distant locations, and these remote points can in turn automatically report pertinent data back to the control installations. This wonderful tool is available to us now. It is up to us to apply it to our operations."

Telemetering, tele-control and automatic calculation already are proving to be the best systems for handling large volumes of gas efficiently and economically, according to C. E. Pettry, Charleston Group Companies, The Columbia Gas System, Inc. In his address at the May 18 gas dispatching session, he reported that the Charleston Group, with 22 stations and 171 different operations now telemetered to its two control centers, eventually will telemeter 250 operations at 50 locations along its transmission lines.

The economic feasibility of installing "satellite" equipment was indicated by Mr. Pettry's estimate of labor savings amounting to about \$150,000 a year. This figure excludes fringe benefits which, he said, represent at least another 20 per cent.

"At this rate," he added, "labor savings alone will pay for our telemetering program in about seven years. We expect that these savings will increase be-

cause of the trend toward higher wages and broader benefits, and we are not discounting the intangible advantages accruing from more streamlined dispatching techniques."

Potentials for the employment of digital computers in predicting transmission system requirements and advance scheduling were summarized at the May 19 gas dispatching session by L. J. Rankine, International Business Machines Corp., and W. A. Shipman, The Columbia Gas System Service Corp. They termed current gas industry applications of digital computation "steps on the long road toward the completely automated system wherein the computer will continually analyze and schedule system operations in an optimum manner."

Messrs. Rankine and Shipman stressed the need for utility men to understand these new tools and techniques and "to establish the profits they can achieve."

They also declared that "mathematicians and operations research men must understand more clearly the practicalities of the many problems involved, and digital computer manufacturers themselves must realize the potential of this area of application and its specialized equipment requirements."

Other speakers covering specialized phases of transmission system automation were J. G. Barnhart, Natural Gas Pipeline Co. of America, who moderated the May 18 session on compressor stations; D. P. Corkill, Northern Natural Gas Co.; B. O. Fields, Southern Natural Gas Co.; R. D. Milam, American Louisiana Pipe Line Co.; and J. E. Wallace, Hope Natural Gas Co.

Also F. Vinton Long, Texas Eastern Transmission Corp., who moderated a panel at the May 18 session on communications and tele-control and presided at the May 19 session; J. S. Fouch, International Business Machines Corp.; E. W. Head, Control Corp.; M. D. Shriver, Millard D. Shriver Co., Inc.; J. E. Keller, of Dow, Lohnes and Albertson; and A. F. Wooster, Michigan Wisconsin Pipe Line Co.

In his address at the second general session, Douglas Ball, of Ball Associates, reported that water-sand storage reservoirs now are helping to maintain low gas bills in areas where economical underground storage of natural gas would otherwise be impossible.

Noting the growing importance of water-sand storage in regions which lack

(Continued on page 49)



The May 19 sessions at the Transmission Conference were addressed by (l. to r., seated): Dr. Walter Roberts, Jean LeGuellec, and N. P. Chesnutt. (l. to r., standing) are: Eldon V. Hunt, G. G. Wilson, and D. C. Benson



L. T. Potter welcomed delegates at general session



Speakers at the May 19 gas dispatching session included (l. to r.): W. A. Shipman, R. J. Rankine, and H. B. Lafferty



J. C. Wallace discusses compressor station automation during a May 18 technical session. Other participants on the afternoon program are (l. to r.): J. G. Barnhart (moderator), R. D. Milam, and D. P. Corkill

*Race belongs to the
swift, Midwest Regional Gas
Conference is told*

PAR called 'spearhead' of industry

Sales executives attending the Midwest Regional Gas Sales Conference May 18-19 in Chicago were told that "the competitive race belongs to the swift. The gas industry is out front in many sales areas and gaining in other areas where the competition holds the lead."

A. G. A. President J. Theodore Wolfe, the conference's opening speaker, added that "the spearhead of our drive to win, maintain, and expand gas markets has been the PAR program since its inception 15 years ago."

Mr. Wolfe said the gas industry has invested \$35 million at the national level to boost sales of gas and gas appliances since the PAR plan was developed. "This year, PAR's \$7 million budget includes nearly \$1.5 million for promotion and print advertising, more than \$1.7 million for research, and nearly \$3 million for television," he said.

"PAR has paid off handsomely in terms of increased sales and wider ac-

ceptance of gas. Its success has so impressed our competitors that some of them have been prodded into copying many features of PAR in programs designed to promote their own products," he said.

Mr. Wolfe added that A. G. A.'s market analysts estimate that the residential market will have an estimated sales potential of some 57 million new gas appliances during the five-year period running through 1962. This will include 17.5 million water heaters, 16 million floor, wall and space heaters, nearly 14 million ranges, 5 million central heating systems, 3.5 million dryers, and 500,000 incinerators. He also forecast tremendous market opportunities for gas refrigeration and year-round gas air conditioning.

Mr. Wolfe was introduced by Conference Chairman Frank Soldan of the Kansas-Nebraska Gas Co. Other opening day speakers were Alex Dreier, NBC

newscaster; Kimball Hill of Kimball Hill and Associates and president of the Home Builders Association of Chicago; Ray Nelson, manager, heating and air conditioning department, Northern Illinois Gas Co.; Robert S. Ingersoll, president, Borg-Warner Corp.; and William E. Nagel, district manager, Siegler Heater Co.

Also introduced was Eugene P. Mink, vice-president, Wisconsin Southern Gas Corp., who will serve as conference chairman in 1960.

Mr. Hill, also a past president of the National Association of Home Builders, said he boosts gas because "it offers homeowners the most value for the least money." He said the new home market competition is fierce, and will become even more so in the years ahead.

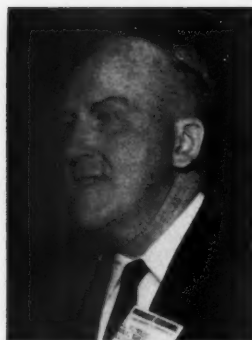
"We are in for a tremendous building boom, and you may as well face the fact that builders will represent some 50 to 60 per cent of your total residential

FRANK SOLDAN



HAROLD MA

J. THEODORE WOLFE



KIMBALL HILL



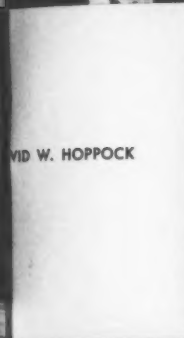
RAY NE



MILTON W. ELERT



BONNIE DEWES



DAVID W. HOPPOCK



WILLIAM E. NAGEL



ROBERT S. INGERSOLL



WILLIAM S. BRECKLE



EUGENE P. MINK



sales," he said. He said the day of the custom home is past. "Tract building is here to stay, and since the choice of home appliances usually rests with the builder, he will have a major vote in whether or not these appliances will be gas or electricity," he added.

Mr. Hill pointed out that our competitors are aggressively selling builders. Here is how he would meet this competition:

1. Develop a builder's point of view. Familiarize yourself with his technical and merchandising problems. Remember that most people buying a home base their decision on the house, not on the appliances. Even buyers with definite preferences will accept what the builder has included if they like the house well enough.

2. Know the builders in your area. Tell your story effectively, and stress the cost factors and other advantages of gas. Remember that the builders also want

satisfied customers.

3. Educate and sell the public on the numerous advantages of gas and gas appliances.

4. Deliver appliances to builders on time. Keep your promises. Treat him like an honored customer and, above all, don't woo him with deals. Woo him with facts.

"Gas Versus Electricity for Space Heating," a detailed comparison of various house heating fuels, was the topic of Mr. Nelson's talk. This comprehensive report is available by writing to Ray Nelson, Northern Illinois Gas Co., Bellwood, Ill.

Mr. Ingersoll, speaking on "An Industrialist Contemplates the Gas Industry," said that Borg-Warner's goals have always included the determination to grow faster than the general economy of the country. "For this reason, we are happy to be identified with your own growth industry," he said.

Explaining Borg-Warner's interest in the gas industry he said:

"The Norge Division of Borg-Warner is in the gas business all the way. Norge has a gas clothes dryer on the market as well as a broad line of free standing and built-in gas ranges.

"Norge's new vertical broiler gas range is receiving an enthusiastic reception. This is virtually a new gas product which broils meat vertically between two infra-red heat units and seals in the flavorful meat juices. And, of course, Norge for a long time has supplied gas water heaters.

"Norge now is readying two more gas-fueled units in the appliance field. One is a combination gas clothes washer and dryer, the other a gas refrigerator.

"Our York Division features a number of products that utilize gas. Among these are the York gas-fired furnaces, with input capacities ranging from 80,000 to 240,000 Btu. These are made

in upflow, counterflow and horizontal models. Most of these units are designed for the simple addition of central air conditioning at any time.

"The York absorption system of air conditioning and refrigerating uses gas to provide low pressure steam. This is one of the quietest, most economical, and dependable air conditioning systems available today.

"York also is active in promoting gas powered heat pumps and gas engine powered refrigeration. This latter use is becoming more and more popular in the petro-chemical field, where part of the gas is diverted to operate the refrigeration equipment. A number of developments are undergoing final testing now, and within a few months we hope to be able to announce still another advance in the use of gas in the air conditioning field.

"The Byron Jackson division provides tools, equipment, and services for the production of natural gas. These are primarily in connection with the drilling and completion of wells."

The Tuesday morning session was opened by Harold Massey, managing director, Gas Appliance Manufacturers Association, who spoke on "Sales, Services and Solutions."

Mr. Massey explained the role of trade associations in providing tools and aids which round-out the total selling

effort. He pointed out that the market for gas appliances is growing by leaps and bounds and that the future never looked brighter. Mr. Massey also emphasized the importance of continued research to develop new products and improve current ones.

Quoting Edward A. Norman, GAMA president, Mr. Massey said, "No matter how you look at it, the only true means of measuring progress is through sales achievement. This business of selling—and selling to a public that has been educated to demand modernity, performance and service—is the key to progress for a company, an industry, and for a healthy national economy.

"You can have the world's finest business organization internally, and still go down for the third time, if the proficiencies of that organization are not transmitted to your customers through your salesmen."

Other speakers Tuesday included David W. Hoppock, vice-president, Bryant Manufacturing Co.; William S. Brenckle, president, Natural LP-Gas Corp.; Miss Bonnie Dewes, vice-president, D'Arcy Advertising Co.; Milton W. Elert, superintendent, dealer coordination and sales training, Michigan Consolidated Gas Co.; and Dr. Earl Planty, professor of management, College of Commerce and Business Administration, University of Illinois.

Mr. Hoppock, speaking on "Gas Air Conditioning—Markets and Competition," described Bryant's new three-ton add-on gas air conditioning unit. He said that a five-ton unit will be ready in the fall. Mr. Hoppock urged gas salesmen to stress the economy of installation and operation in selling these units.

Mr. Brenckle cited the importance of all gas industry segments working together. He reviewed the tremendous growth of the LP-Gas industry, and pointed out that the LP-Gas load often justifies the extension of natural gas mains into an area.

The teen-age and young married market was explored by Miss Dewes, an advertising account executive for Laclede Gas Co. Miss Dewes said that modernity is the key to selling this group. She called the group "one of the biggest potential markets for the sale of home appliances."

Mr. Elert said that "Customers Are People, Too," and that people like to do business with people they like.

Dr. Planty spoke on "Human Relations in the Area of Salesmanship." He discussed management's role in providing a leadership which creates a climate where people realize their best potential.

The meeting closed with a tribute to Frank W. Williams, Secretary, A. G. A. Residential Section, who retired June 15 after 21 years of service.

Convention

(Continued from page 8)

special session following the luncheon. Mr. Chandler will preside at the afternoon meeting, which will get underway at 3 p.m.

Highlight of the session is expected to be the presentation of the A. G. A. Public Relations Achievement Awards and the Safety Achievement Awards.

Election of Section officers and also of the 1960 Nominating Committee will follow.

A sales session sponsored jointly by the Industrial and Commercial Section and the Residential Section will be held Oct. 6, beginning at 2 p.m. The presiding chairmen will be F. Thompson Brooks, Industrial and Commercial Section chairman, and Thomas H. Evans, Residential Section chairman.

Mr. Brooks is sales manager, industrial sales department, Philadelphia Electric Co.; Mr. Evans is vice-president-sales, Equitable Gas Co.

Following opening remarks by both chairmen, a report of the nominating committee of each section will be made. Roy E. Wright, director, gas and electric sales, NEGEA Service Corp., is chairman of the Industrial and Commercial Section

Nominating Committee. A. G. Bur, vice-president-sales, Wisconsin Public Service Corp., heads the Nominating Committee for the Residential Section.

Following election of officers for each section, Mr. Wolfe will present the Industrial and Commercial Achievement Award and the annual Home Service Award given by *McCall's* magazine.

The balance of the program will include a speaker, yet to be selected, who will talk on industrial and commercial gas sales. The joint meeting will close with an entertaining presentation on residential sales by Caloric Appliance Corp.

The Operating Section will meet Oct. 5 from 2:30-4 p.m. H. C. Jones, Section chairman, will preside, and will present the "Report of Section Activities."

V. H. Bittner, chairman of the Section Nominating Committee, will give the committee report. This will be followed by the election of Section officers.

After a presentation of Operating Section awards, an address will be given. The speaker and topic are yet to be selected.

The annual Home Service Breakfast will be held Tuesday, Oct. 6, at 8 a.m. Lucy Slagle of Atlanta Gas Light Co. will preside as chairman of the Home Service Committee. The afternoon round-table on home service will be held Oct. 5.

Industrial relations

(Continued from page 18)

3. The NLRB may be asked to order a party to an arbitration to give up its efforts to upset an arbitration award.

(Mr. Jenkins failed to generalize on this. He merely outlined two decisions in which the NLRB found a refusal to bargain. In one case, the union struck, after an adverse arbitration award, without giving the required 60-day notice. In the other case, an unfair labor practice was called when the union struck without first resorting to the grievance and arbitration procedure.)

4. A party may sue under Section 301(a) of the Taft-Hartley Act to compel compliance with the union contract.

(The federal courts will compel specific

performance of arbitration clauses. However, according to Mr. Jenkins, many problems of interpretation will arise in the future.)

● **Arbitration decisions: two kinds of sleeping on the job**—A paint shop employee with 15 years of service found a secluded spot and promptly went to sleep. The company wanted to fire him, but the union prevailed upon it to suspend him for a week with a warning that next time he would be sacked. When the next time occurred—the employee fell asleep during lunch hour and overslept into his work period—he was fired.

The arbitrator ordered the employee reinstated, and substituted a five-month suspension. According to the arbitrator, there was a distinction between the first sleeping,

which was intentional, and the second, which was accidental. The accidental sleep, said the arbitrator, was not a repetition of the intentional sleep. Therefore, the employer's threat of discharge for the second offense could not legally be carried out.

Illinois utility sells building

CENTRAL ILLINOIS LIGHT CO.'S new Peoria office building has been sold for \$3,250,000 to the First National Bank of Chicago, trustee for General Motors Pension Funds. Negotiations for the sale of the building began in 1955 and were completed in March 1958. The initial lease allows Central Illinois Light to occupy the building for 30 years and, at its option, to execute renewals of the lease for a total of 99 years.

Research needs

(Continued from page 16)

these costs is of obvious value in besting our competition. I feel there is little question that we can improve the efficiency with which we operate our systems.

In transmission, too, our costs are rising. Additional research to reduce these costs as well as to improve service can pay handsome dividends to us all.

The role of storage also merits increased attention, and research can help us here in developing new, lower cost methods of meeting peaks and reducing seasonal fluctuations.

In operations, as in market exploitation, a comparison of 1958 gas industry research expenditures with directly competitive expenditures by other energy industries is rather alarming. The coal industry spent \$2.4 million for operations research in 1958; the petroleum industry spent \$10.6 million; the electric industry \$12 million; and the gas industry spent only \$1.9 million.

At this rate, is it any wonder some people think of the gas industry, compared to its competitors, as old-fashioned? Let us not deceive ourselves—we know there is truth in this picture. And at this comparative rate of research for modernization, can we expect to grow as befits our capabilities?

A third category of major research needs is in the area of assuring future sources of supplies of gas at a competitive price.

Already, most of us are aware that as the available domestic supplies reach a maximum withdrawal rate (and I don't know when this will occur) the cost of gas will increase. As production "plateaus" and national energy demands in-

crease, we must be able to fill the gap. That means we must now accept the responsibility of developing methods to produce supplemental gas at acceptable cost or become a static industry. Research is helping us to meet our responsibility in this area; but we need more—much more—along this line, before we can feel secure.

Comparison of our research expenditures in this category of future supply with those of the electric industry must certainly give us cause for alarm.

In 1958, while the gas industry was spending \$400,000 on research in this category, the electric industry spent \$15 million, counting only research directed to markets served by gas.

This electric figure included \$10 million for nuclear power research. Let us take warning from history. Wood was supplanted by coal for house heating, coal was given a back seat by oil, now oil has been eclipsed by gas in this market. Are we next going to let ourselves be overtaken by nuclear generated electricity? This will come, as sure as taxes, if we don't watch out.

When we consider the problems and competition facing us, there can be no doubt whatsoever about the need for greatly intensified research in all categories. I would like to point out, however, that we have another problem on which our research effort has an important bearing. This is the problem of financing.

In today's competition for investment dollars, an industry is viewed with skepticism by the financial fraternity if it does not have an active and aggressive research program. This fact reflects the judgment of these hard-headed investors that research today not only is a normal,

necessary and important part of any industry's operations, it is also a gauge of management alertness—a hallmark of progress.

The report, as you have read, recommends a PAR research budget for \$4 million as soon as possible and \$6 million by 1965.

It represents the very least that we can, and must, do.

Where do we stand in relation to other industries in the total amount of research we have underway? If we consider one gauge to be the ratio of research expenditures to total industry revenues, we have an uncomfortable comparison (see Chart 1). As you see, we are far below the average for all industries.

Let me repeat the values shown on the chart. Gas industry research, including PAR, manufacturers and individual companies, totals 0.12 per cent of revenues for 1958. The average for all industries is 1.5 per cent or 12½ times as much. Even under the added budget recommended by Battelle, we would increase our ratio to only 0.21 per cent of revenues. This is only two-tenths of 1 per cent. The electric equipment industry is regularly spending 2½ to 3 per cent of sales on research, exclusive of government contracts.

Battelle figures for 1958 show a further comparison of total research expenditures of the gas industry and other energy industries directed only to the markets served by gas:

Coal industry, \$4.2 million.

Petroleum industry, \$11.1 million.

Electric industry, \$42.0 million.

Gas industry, \$4.8 million.

If some of us have lulled ourselves

into complacency with the feeling that any contributions we have made have been a luxury indulgence, let us reflect on these figures.

Under such competitive conditions, we can no more afford to give short shrift to research than we could afford to let our plants wear out and break down without replacement.

Is our level of research keeping pace with the growth of our industry? Let's take a look at our growth (see Chart 2). In 1950, total gas utility revenues were just under \$2 billion. In 1958, we passed \$4.5 billion, and the A. G. A. Bureau of Statistics estimates a 1964 figure of almost \$7 billion. This is a rather healthy outlook, provided we maintain it. Without a more substantial research outlay, that outlook dims.

To implement the Battelle recommendations would require a net increase in the PAR research subscriptions of some \$600,000 per year through 1965 (see Chart 3). This figure excludes the normal growth in the research subscriptions of some \$100,000 based on predicted industry revenue growth. Thus, a total \$700,000 increase per year would provide a \$6 million PAR research budget in 1965.

This, together with manufacturers' and individual utility companies' expenditures of \$7 million and \$1.5 million, respectively, as recommended by Battelle, would give the industry a total of \$14.5 million. Although I am certain that our competitors will continue to increase their research expenditures in future years, I feel that this \$14.5 million is an acceptable minimum goal for which we can aim.

As you have probably noted, I have not discussed the growth in PAR promotion and advertising, public information or TV. However, I believe a comparison of growth in the promotion field with that in research would be appropriate.

Chart 4 shows that there has been a much more rapid growth in funds devoted to these over-all promotion activities than in research funds. Research has increased some 2.8 times while total promotion and advertising, which includes TV, increased 6.5 times from 1950 to 1959.

This promotion and advertising increase has been a wise one, and the investment is being well repaid. But without accompanying and comparable research investments, even promotion and advertising cannot continue to be

fully effective. No salesman can be much better, for very long, than the product he has to offer. As I have said before, we must have new and better things to advertise and promote, and these can only come from research and development.

In this connection, another very important recommendation is made by Battelle. Product development, of course, does not end with research. If research results, no matter how successful technically, are not quickly transformed into commercially available products, they are meaningless.

This means then, that a manufacturer must be brought into the picture during the final steps. Since final development, test and production often involve considerable expenditures, some sort of preferential position such as exclusive licensing may be desired, or required, by the manufacturer. Such exclusive licensing arrangements unfortunately have legal complications and also open A. G. A. to criticism from other manufacturers.

License third party

Battelle recommends that A. G. A. transfer complete control of licensing to a third party, not a manufacturer, who would in turn select a manufacturer to be exclusively licensed under the patents involved. Experience has shown that such a procedure is not only desirable, but necessary, if we are to obtain maximum benefits from our research program. I would recommend that such a course be initiated as soon as possible.

In summary, the General Research Planning Committee at its April 16 meeting accepted the Battelle report, and recommended that we take the first step of the proposed program in 1960 with a total increase of \$700,000 in the research budget.

Our industry at the moment has urgent research projects that would require \$1 million of extra money for the first year. We are not geared up to the economic expenditure of this much money and, hence, the more conservative figure of \$700,000 which I am recommending. This would be spent as follows:

1. Domestic research, \$150,000. While ignition, combustion and venting are each important in their own right, the proper coordination of all three is necessary to obtain optimum results from each appliance. We believe that each appliance should be "tailored to the task" if we are to meet on better than equal

terms the challenge of our competitors. A study will also be made of ventless heaters and controls as well as other urgently needed domestic equipment.

2. Industrial and commercial research, \$50,000. The electric industry is making a strong bid for our commercial cooking load as well as many phases of our industrial applications. New methods of utilization and improvements in present equipment will be studied in this category.

3. Air conditioning research, \$100,000. Air conditioning fills our summer valleys. We propose to study the large units now available with a view to improving their efficiencies.

4. Operations, \$50,000. Here we shall further our studies in the manufacture of synthetic gas.

5. Distribution, \$100,000. To study improved practices for more efficient gas distribution systems.

6. Pipeline research, \$100,000. Major items will include studies of system automation, improved storage practices, and shipment of liquids.

7. Special projects, \$150,000. Much research is being done within the gas industry. Much can be wasted if not coordinated. Much fundamental work has already been done but we need to know who has done it and coordinate all of this work. Some manufacturers may need just a little more money to complete a project that is lagging, others may volunteer their findings to save someone else from duplicating what has already been done. (In this item also is money for two additional staff men and a small sum for keeping the industry aware of what is happening.)

While the ramifications of tripling our research budget in five years may require some further study as to ways and means, we urge you—do not delay! Let us take this first concrete step forward now.

I believe that research can be likened to an insurance policy on the future of our business. With it, we can keep abreast of competition. Without it, we can become static and watch our competitive advantages disappear. No single gas company or manufacturer is big enough to undertake the job alone. It must be done as an industry effort. All of us have large sums invested in our present operations. We cannot jeopardize this investment by a short-sighted policy of denying expenditures for expanding areas of utilization. My company stands ready to go ahead!

Transmission

(Continued from page 43)

former gas or oil fields, Mr. Ball cited as examples Chicago's Herscher field, the Lange and Waterloo fields serving St. Louis, and Louisville's Doe Run field.

All presently-used reservoirs are in porous rock, the Denver gas and oil consultant told delegates. He added that this type of storage currently costs a dollar or less per Mcf of capacity and from two to eight cents per Mcf of gas withdrawn. Although no caverns mined for gas storage now are in use, "caverns look to cost several times as much as porous reservoir storage per Mcf of capacity," Mr. Ball said.

Rich gas fields recently discovered in the Sahara Desert ultimately will serve not only the French North African colonies but France and other energy-poor nations of western Europe, according to Jean LeGuellec, chairman of Gaz de France.

The chief executive of the French nationalized gas industry told transmission men at the second general session that a proposed pipeline under the Mediterranean will permit France to tap tremendous gas reserves in the Hassi-R'mel field 250 miles from the Algerian coast. He said reserves of the field currently are estimated at 60,000 billion cubic meters.

Mr. LeGuellec also reported the recent discovery of a natural gas field in southwestern France which has proved reserves estimated at 10.5 trillion cubic feet. He said this deposit is expected to furnish his industry with 36 billion therms a year beginning in 1960.

Bottlenecks in long-range weather forecasting may be broken by rockets, satellites and even nuclear bombs, Dr. Walter Orr Roberts of the University of Colorado's High Altitude Observatory said at the May 19 general session. The gas industry has been a sponsor of the Observatory's solar weather research for the past three years. These studies are of particular interest to transmission companies which need reliable long-range forecasts in planning construction programs.

"We are witnessing the beginnings of a sustained period of dramatic advances in atmospheric research," said Dr. Roberts. "New methods and instruments are suddenly in our hand. Rockets and satellites are perhaps the most spectacular of these, and their promise is vast."

The nation's leading solar weather scientist also predicted that nuclear bombs "will in all probability" gain far greater importance in the atmospheric laboratory's list of instruments. "Until now," he observed, "the use of such devices for atmospheric research has been rather an accidental by-product of weapons testing."

Laboratory-evaluated methods of preventing corrosion in stored pipe were outlined by G. G. Wilson, Institute of Gas Technology, who also addressed the second general session. IGT has conducted A. G. A.-sponsored research on internal coating since 1955.

Noticeable internal corrosion generally occurs after two years' storage in most parts of the United States except the arid regions of the South and Far West, he explained in his review of research findings. This corrosion results in plugged appliances, decreased pipeline efficiency, ground-out regulator valves and scoured orifice plates.

IGT's evaluations noted

Mr. Wilson reported that the Institute's evaluations of 27 different types of coating indicate some of the air-drying and catalytic-curing systems based on epoxy and vinyl resins are best suited physically and chemically. He also stated that systems employing heat-cured materials offer no advantages over air-cured methods and are unjustified in terms of the extra cost involved in their use.

C. E. Terrell, Southern Natural Gas Co., in an address at the May 19 general session, cautioned pipeline engineers against permitting pressure for compactness of design or economical construction to dictate the installation of offshore metering facilities.

Acknowledging that offshore production platforms are costly structures on which space is at a premium, he emphasized that this situation still must not lead to "overly compact" measuring facilities. "These metering stations offshore will measure millions of dollars' worth of gas during the life of the reserve," he said. "To allocate insufficient space for meters would be poor economy for both the buyer and seller of gas."

R. V. Campbell, American Louisiana Pipe Line Co., and chairman of the Transmission Committee, presided at the first general session when delegates were welcomed to Dallas by Lester T. Potter, president of Lone Star Gas Co.

and second vice-president of A. G. A.

The chairman of the Operating Section, H. C. Jones, gas division, New England Electric System, presented a report of Section activities. A. G. A.'s eighth annual report on underground storage was summarized by L. R. Kirk, The Ohio Fuel Gas Co., and chairman of the Subcommittee on Underground Storage Statistics. Also featured on the program was H. M. Joiner, The Peoples Natural Gas Co., who described methods of applying computing equipment in gas transmission operations.

The second general session was chaired by N. P. Chesnutt, Southern Union Gas Co., and chairman of the Committee on Underground Storage.

Speakers included Eldon V. Hunt, The Alberta Gas Trunk Line Co., Ltd., whose paper reviewed the construction, testing and operation of the Alberta transmission system; Stanley Owens, Transcontinental Gas Pipe Line Corp., who summarized A. G. A.'s annual safety survey of transmission companies as chairman of the Association's Accident Prevention Committee; and D. C. Benson, Texas Gas Transmission Corp., who presented a paper outlining current research programs in the pipeline field.

T. P. Rykala, Michigan Consolidated Gas Co., and chairman of the Communications and Tele-Control Committee, presided at the first technical session on communications and tele-control. F. Vinton Long, Texas Eastern Transmission Corp., moderated a tele-control symposium in which the participants were Messrs. Fouch, Head and Shriver. He also presided at the second technical session when speakers included Messrs. Keller, Cook and Wooster.

C. D. Long and H. W. Egger, United Gas Pipe Line Co., presented their paper on vapor phase cooling and low pressure steam utilization at the first technical meeting on compressor stations. The session also was highlighted by a panel discussion on automation and unattended compressor station operation moderated by Mr. Barnhart. Participating were Messrs. Corkill, Fields, Milam and Wallace.

K. E. Kalen, Panhandle Eastern Pipe Line Co., and vice-chairman of the Subcommittee on Compressor Stations, was chairman of the second technical session on compressor station operations. The afternoon's panel session on experiences with supercharged horizontal and angle compressor units was moderated by

R. E. Richardson, Michigan Wisconsin Pipe Line Co.

Panelists include N. C. Comfort, Hope Natural Gas Co.; E. M. Griffiths, Northern Natural Gas Co.; H. E. Stecker, Panhandle Eastern Pipe Line Co.; and W. E. Warner, Natural Gas Pipeline Co. of America.

J. B. Eaton, Jr., of Texas Gas Transmission Corp., also participated in the May 19 compressor station meeting where he presented a paper outlining his company's experiences with aluminum bearings.

Three speakers addressed the May 18 gas measurement session at which W. A. Griffin, Daniel Orifice Fitting Co., presided. Mr. Griffin is chairman of the Gas Measurement Committee.

J. Fred Ebdon, editor, *Gas Magazine*, opened the session with his paper on "A Modern Package for the Cubic Foot," and T. L. Robey, A. G. A. research director, reviewed gas measurement research projects in a paper entitled "P's, Pi's, Pip's and Pipes." The bellows differential gauge was described in a paper by Gordon W. Swinney, Phillips Petroleum Co.

The first of two afternoon pipeline sessions was chaired by C. W. Hollenshead, United Gas Pipe Line Co., and chairman of the Pipeline Subcommittee. The testing and evaluation of new pipeline coating materials were described by N. T. Shideler, Pittsburgh Coke and Chemical Co.

Three transmission company representatives covered the internal cleaning of pipelines in a panel discussion in which Clinton McClure, El Paso Natural Gas Co., appeared in the dual role of moderator and speaker. He outlined the water and detergent method of cleaning, while P. L. Huguen, Texas Eastern Transmission Corp., discussed the on-stream method. The dry scraping method was reviewed by J. N. White, Panhandle Eastern Pipe Line Co.

J. J. Corrigan, Transcontinental Gas Pipe Line Corp., and vice-chairman of the Pipeline Subcommittee, presided at the May 19 pipeline meeting. Speakers were Ray Middlebrooks, United Gas Pipe Line Co., "Painting of Aboveground Facilities"; John H. Davis, Northern Natural Gas Co., "Elimination of Underground Freezing Caused by Regulation"; and L. M. Odom, of Pyburn and Odom, who presented a paper on the design and

installation of pipeline river crossings.

Mr. Chesnutt chaired the conference's May 19 technical session on underground storage in which three papers were presented to delegates.

The interpretation of well logs by storage field operators was described by William Clark, Natural Gas Storage Co. of Illinois. In a paper entitled "Gas Storage Under a Metropolitan Area," J. H. N. Ellis and T. C. McLean, Pacific Lighting Gas Supply Co., reviewed the development and operation of the Montebello storage field in California. The field in suburban Los Angeles is jointly operated by Pacific Lighting Gas Supply Co. and Union Oil Co.

Methods of combating erosion in the casings of underground storage wells were covered in the session's final paper presented by Y. W. Titterton, Corrosion Services, Inc.

H. B. Lafferty, El Paso Natural Gas Co., and chairman of the Gas Dispatching Committee, presided at the May 19 gas dispatching session.

A. W. Foster, Hope Natural Gas Co., who addressed the 1958 Transmission Conference on his company's installation of supervisory and remote-controlled equipment, returned to present a first anniversary report on Hope Natural's experiences with the transmission system the company has nicknamed "Automatic Otto."

An anniversary report also was presented on the Columbia Gulf Transmission Corp.'s first remote-controlled, unattended compressor station which went on-stream in the spring of 1958. Columbia Gulf's experiences were described by Gene Foulke.

Other speakers participating in the gas dispatching session were Messrs. Pettry, Rankine and Shipman.

A highlight of the Dallas conference was the presentation of committee service plaques to the past chairmen of five key committees. H. C. Jones, Operating Section chairman, awarded the plaques to E. N. Armstrong, Transcontinental Gas Pipe Line Corp., Gas Measurement Committee; J. R. Beckwith, Washington Gas Light Co., Communications Committee; H. L. Fruechtenicht, Consumers Power Co., Committee on Underground Storage; A. L. Roberts, Texas Gas Transmission Corp., Transmission Committee; and Calvin Scott, Oklahoma Natural Gas Co., Gas Dispatch-

ing Committee.

Mr. Jones also announced the awarding of service certificates to the past chairmen of seven Transmission subcommittees. Recipients were R. O. Ankarberg, Michigan Wisconsin Pipe Line Co., Underground Storage Mechanics; Earl Fox, Consolidated Gas Utilities Corp., Verifying Storage Inventory; G. C. Grow, Jr., Transcontinental Gas Pipe Line Corp., Underground Storage Legal Forms, Documents and Statutes; M. L. Mead, Northern Natural Gas Co., Gas Storage in Aquifers; R. J. Murdy, Consolidated Natural Gas Co., Deliverability Problems; D. T. Secor, United Natural Gas Co., Underground Gas Storage Statistics; and Paul Williams, United Gas Pipe Line Co., Pipeline Subcommittee.

Production

(Continued from page 41)

Mr. Lehmann stated that his experience had shown that special shapes, such as rings and soaps, have no advantage over standard-size bricks.

All panel members used fire-clay for wall constructions.

The fourth panel was moderated by Mr. Mengers. The panelists, who discussed "Experience with Improved CCR Catalysts," were Messrs. Calderwood and Dundore; R. W. Crockett, Public Service Electric and Gas Co.; W. Keeley, Chemetron Corp.; Dr. C. G. Milbourne, United Engineers and Constructors, Inc.; and J. M. Reid, Institute of Gas Technology.

At Monday's odorization Session, R. M. Pearson, Michigan Consolidated Gas Co., and chairman of the Subcommittee on Odorization of Gas, presided. The alternate chairman was L. Raymond Billett, Northern Illinois Gas Co., and vice-chairman of the Subcommittee.

Research reports were given by P. B. Tarman, Institute of Gas Technology, and R. W. Gilkinson, Rochester Gas and Electric. Mr. Tarman spoke on "Soil Adsorption." Mr. Gilkinson's paper was entitled "Instruments, Literature Survey, Etc."

A. R. Bayer, Brooklyn Union, outlined a "Survey of Odorization Practices." Mr. Deutsch expanded on his paper, given originally at the opening session.

Chemical engineering and manufactured gas production sessions were held on Tuesday morning, and gas conditioning, manufactured gas production plant-

ning, and solid fuels sessions were conducted on Tuesday afternoon.

P. L. Covell, Minneapolis Gas Co., presided at the Chemical and Engineering session. Mr. Covell is vice-chairman of the Chemical and Engineering Committee.

Speakers and their subjects included Arnold Wexler, National Bureau of Standards, "Measurement of Moisture in Gas"; D. F. Cundari, Public Service Electric and Gas, "Research on Suspensoids in Gas"; D. V. Kniebes, Institute of Gas Technology, "Recent Developments in Gas Chromatography"; J. A. Knell, Koppers Co., Inc., "New Waterless Holder Sealants—Their Selection and Use"; Norman Wiederhorn and Arnold Doyle, Arthur D. Little, Inc., "Principles of Gas Cleaning"; and L. M. Van der Pyl, Rockwell Manufacturing Co., "Bibliography on Odorization of Gas—1958 Supplement" and "Bibliography on Gas Conditioning—1958 Supplement."

Dean B. Seifried, Orange and Rockland Utilities, Inc., and vice-chairman of the Manufactured Gas Production Committee, presided at the manufactured gas production session.

Speakers and their subjects included Mr. Reid and D. McA. Mason, Institute of Gas Technology, "Performance of Supported Nickel Catalysts in Cyclic Stream Reforming of Natural Gas"; R. G. Minet, United Engineers and Constructors, Inc., "Some Comments on Probable Future Costs of Synthetic Pipeline Gas"; S. A. Symnoski, Philadelphia Gas Works, division of UGI, "Disaster Plans for Production Plants"; H. R. Linden, Institute of Gas Technology, "Status of Hydrogasification Research"; A. Russell Young, Constock-Pritchard Liquefaction Corp., "Liquefaction and Storage of Natural Gas for Peak Shaving"; H. C. Jones, gas division, New England Electric System, "Automatic High Pressure LP-Gas Installation for Peak Shaving"; C. G. von Fredersdorff, Institute of Gas Technology, and Dr. F. E. Vandaveer, Consolidated Natural Gas System, "Manufacture of Substitute Natural Gas from Coal," which is a chapter from the forthcoming *Gas Engineers' Handbook*.

Mr. Cundari, chairman of the Subcommittee on Gas Conditioning, presided at the session on gas conditioning. Mr. Laudani, who served as alternate chairman, presented a paper entitled "Survey of Current Gas Conditioning Practices." Further discussions of papers given at

the morning chemical and engineering session were presented by Messrs. Weidernhorn, Doyle, Wexler, Kniebes, and Knell, and A. B. Lauderbaugh, Manufacturers Light and Heat.

D. V. Buchanan, Consolidated Edison, and chairman of the Subcommittee on Manufactured Gas Production Planning, presided at the session on manufactured gas production planning. Mr. Kyle, vice-chairman of the Subcommittee, served as alternate chairman.

Speakers and their subjects were M. T. Keil, who presented a paper by Ather-ton Thomas, Consolidated Edison, on "Pooled Operations on the New York Facilities"; Dr. M. A. Elliott, Institute of Gas Technology, "Over-All Economics of the Cost of Gas at the Point of Consumption"; R. J. Sweitzer and H. W. Wills, Lock Joint Pipe Co., "Storage of Liquefied Petroleum in Prestressed Concrete Pipes"; Mr. Young and K. B. Nagler, The Peoples Gas Light and Coke Co., "Liquefaction, Storage, and Regasification of Natural Gas"; Mr. Seifried, "Peak Shaving Versus Winter Natural Gas Service"; and R. B. Rosenberg, Institute of Gas Technology, "The Fuel Cell."

Presiding at the session on solid fuels was J. A. Phinney, Consolidation Coal Co. Library. The alternate chairman was L. L. Newman, vice-chairman of the Subcommittee on Gases from Solid Fuels.

Speakers were H. W. Nelson, Battelle Memorial Institute, "Coal Carbonization Trends and Status"; J. P. McGee and Sidney Katell, "Nuclear Energy for Gasification of Coal"; Mr. Katell and J. H. Faber, "The Cost of Tonnage Oxygen"; and John Ratway and J. W. Eckerd, "New Developments in Anthracite Gasification." All of these men are with the United States Bureau of Mines.

Mr. Phinney moderated a panel on "Potential Characteristics of Substitute Pipeline Gas."

R. L. Coryell, Consolidated Edison, and chairman of the Chemical and Engineering Committee, presided at Wednesday's general session. Speakers included William F. Morse, A. G. A., "Review of PAR Activity"; F. J. Pfluke, Rochester Gas and Electric, "Discussion of Rochester Gas and Electric Facilities"; Richard E. Hough, who presented a paper by H. R. Huntley, American Telephone and Telegraph Co., on "Planning for the Future in an Atmosphere of Change"; Mr. Dundore, "Industrial Practice in the Care of Stand-By Production Equipment"; and C. M. Springer,

Transcontinental Gas Pipe Line Corp., "Gas Dispatching."

An inspection tour of Rochester Gas and Electric's facilities was conducted on Wednesday afternoon. Delegates visited the utility's gas production plant, new service center, gas dispatching facilities, and Russell Electric Generating Station.

Rochester Gas and Electric was host to delegates again on Tuesday evening, when entertainment was provided by the company's chorus at the Employees Center.

Union Gas reports earnings

IN ITS ANNUAL REPORT for the fiscal year ended March 31, 1959, Union Gas Co. of Canada, Ltd., recorded total 1958-59 revenues of \$27,283,809, a rise over the 1957-58 revenues of \$17,588,810. Of these totals, gas sales accounted for \$25,110,817 and \$16,871,786, respectively. Expenses, excluding income taxes, totaled \$21,578,289 in 1958-59, above the 1957-58 total of \$12,564,711. Net earnings for 1958-59 were \$2,770,520, higher than the 1957-58 earnings of \$2,561,099. Net earnings after preference dividends were \$2,712,720, an increase from the 1957-58 earnings of \$2,561,099. Earnings per share of common stock amounted to 61 cents in 1958-59, above the 1957-58 earnings per share of 58 cents. Dividends per share of common stock were 32 cents in both years. Gas sales in 1958-59 totaled 25,339,364,000 cubic feet, higher than the 1957-58 total of 17,476,379,000 cubic feet.

SGA releases film on gas

THE SOUTHERN GAS ASSOCIATION has announced the availability of its new gas industry motion picture, *Have Gas—Will Sell*. The film includes dramatized discussions of the following topics: "The Consumer Is Boss," "What Does Mrs. Consumer Want?" "Do We Have What the Consumer Wants?" "How Are We Going To Sell Consumer Benefits?" "Who Is Going To Sell Consumer Benefits?" "When Are We Going To Sell Consumer Benefits?" "What Will It Take To Sell Consumer Benefits?" "Are We Planning Big Enough for the Years To Come?" "Will We Win the Race for Brains?" and "Where Will Your Company Be in 1969?" Copies of the film are available, at \$300 per print, to SGA member companies.

Boiler firm buys building

PENNSYLVANIA RANGE BOILER CO., INC., has begun its new expansion program by purchasing the two-story, 53,000-square-foot American Ice Co. plant for a reported \$75,000. William K. Goldstein, president of Pennsylvania Range Boiler, said that his firm has already started an extensive renovation of the building. The company expects to spend more than \$100,000 on the modernization and improvement of the building, which will eventually house production and warehousing facilities now located outside the firm's main plant.

Industry news

A. G. A. completes scale model of gas forced-air furnace

RESEARCHERS AT THE A. G. A. Laboratories in Cleveland have completed a

demonstration model of a gas forced-air furnace which generates electricity to operate its warm air circulating fan.

Employing the thermoelectric principle, the small-scale prototype furnace is entirely self-contained and requires only gas for operation. Thermocouples—devices which produce electricity directly by the heating of the junction of two dissimilar metals—have long been known; only recent advances in research, however, have made this type of application feasible.

The thermopiles, or groups of thermocouples, used by the A. G. A. Laboratories were provided by Minneapolis-Honeywell Regulator Co.

While availability of the all-gas furnace is not expected for some years, A. G. A.'s scale model illustrates how the thermoelectric principle would operate in a practical application.

The possibility of electric generation by heat at the point of use opens entirely new

design concepts for gas appliances. In such appliances, electricity, mechanical motion, and heat would all come from one energy source—gas.

A. G. A. is also currently conducting research in two areas related to thermoelectricity—the thermionic conversion of heat to electricity and the production of electricity by chemical action in the fuel cell.

Safety record honored

NEW YORK STATE NATURAL GAS CORP.'S Preston Station, located in Sycamore, Pa., has been awarded a certificate of commendation by the National Safety Council for operating for 12 years without a lost-time accident. This record, the best ever achieved by a New York State Natural Gas unit, represents 504,297 man-hours. The record was started in 1947, when construction of the station was begun.

Peoples Gas Light and Coke builds 60-mile, \$17 million pipeline

CONSTRUCTION HAS BEGUN on a \$17,000,000 natural gas pipeline which will extend from near Joliet, Ill., to the Calumet distribution station of The Peoples Gas Light and Coke Co. Completion of the 60-mile line is expected by the fall.

Chicago District Pipeline Co., a subsidiary of Peoples Gas Light and Coke, will build most of the project. The parent company will construct the remainder.

Chicago District Pipeline transports gas from Joliet, where the system's long-distance pipelines terminate, to Peoples Gas Light and Coke, Northern Illinois Gas Co., and Northern Indiana Public Service Co.

Chicago District Pipeline will also transport the gas to be brought to this area by the recently certificated Midwestern Gas Transmission Co.

Eskil I. Bjork, chairman of Peoples Gas

Light and Coke, said that the added gas supplies expected to be available by the next heating season will eliminate the present waiting list of 65,000 applicants for space heating in single-family dwellings.

In addition, the company also may be able to make available space heating service to numerous applicants on the multiple-family buildings' list and to commercial and industrial establishments.

Natural gas, LP-Gas industries in Virginia form Gas Council

THE NATURAL GAS and liquefied petroleum gas industries of Virginia have formed the Virginia Gas Council.

The purposes of the new council are (1) to promote and develop the sale and use of natural gas and liquefied petroleum gas throughout the Commonwealth of Virginia and (2) to develop closer working relationships between members of the council for

the purpose of increasing the effectiveness of gas activities.

Projects now under consideration by the council include the continuation and expansion of present display programs at statewide conventions and meetings, the improvement of exhibits and handouts at exhibits, and the development of better methods of booth-manning at conventions.

In addition, the council will study such long-range projects as direct mail promotional campaigns, equipment demonstrations at colleges, the creation of a new "construction committee" to work with school boards and similar groups, demonstrations at local meetings, statewide advertising, and organized field trips for architects, engineers, builders, and contractors.

A. G. A. receives painting of natural gas story



This painting, "The Miracle of Natural Gas," was presented recently to A. G. A. by Walter Stake (r.), regional vice-president, A. O. Smith Corp. In attendance at the presentation ceremonies were (l. to r.), Harold Massey, managing director, Gas Appliance Manufacturers Association; C. S. Stockpole, managing director, A. G. A.; and S. E. Wolkenheim, vice-president for marketing, A. O. Smith. The multi-colored painting has been hung in A. G. A. Headquarters' main reception lounge

Gas unit honored for safety

THE UNITED GAS safety trophy, awarded annually to the company unit with the best safety record, was presented recently by United Gas Corp. to its Beaumont division. In addition, the division was honored with an A. G. A. award for the completion of one million man-hours without a lost-time accident. The division, which completed the million man-hours several months ago, also won awards from the Southern Gas Association and the American Petroleum Institute.

Norge tests gas refrigerator

THE NORGE DIVISION of Borg-Warner Corp. began testing a new gas refrigerator with utilities in June. Judson S. Sayre, president, said that the company expects to be in mass production and to be marketing the refrigerator nationally through 87 distributors and hundreds of utilities by mid-fall. The new refrigerator is an 11-cubic-foot model with an automatic ice cube maker. Norge will also introduce a gas washer-dryer in the fall.

W. C. Beckjord receives honorary degree

WALTER C. BECKJORD, chairman of the board, The Cincinnati Gas and Electric Co., has been awarded an honorary Doctor of Laws Degree by Xavier University.

The citation to Mr. Beckjord read, in part: "His public service has touched every aspect of life in this community. There are reasons why Mr. Beckjord has been called upon for leadership so regularly and there are reasons why he has brought so many projects to a successful conclusion . . . these

reasons are . . . his strength of character, his winning way with his fellow man, his genius for organization, and his fine combination of the practical and the ideal.

"As the dynamic head of a great utility, Mr. Beckjord has done more than promote the progress of this utility from the age of simple combustion to the atomic age. He has had a profound influence on the development of the entire Ohio Valley as one of the greatest industrial areas of the world."

A.G.A. announces new publications issued during June

PUBLICATIONS

• A. G. A. Proceedings, 1958. \$3.50 to members, \$7 to non-members.

STATISTICS

• Proved Reserves of Crude Oil, Natural Gas Liquids and Natural Gas, Dec. 31, 1958—Vol. No. 13. Free.

PROMOTION

• More People Than Ever Are Cookin' with Gas. Gold Star window streamer. 10 cents per set.

INDUSTRIAL AND COMMERCIAL

• Enough Hot Water—Hot Enough. Reprint from *Air Conditioning, Heating and Ventilating*. 25 cents.
• Information Portfolio on Industrial and Commercial Incineration. Free.
• Commercial Cooking Equipment. Reprint from *American Restaurant*. 25 cents.

RESEARCH

• Wear in Pipeline Engines and Compressors: Methods of Measurement, by D. V. Kniebes. \$1.50.
• Performance of Commercial Gas-Cleaning Equipment, by Arthur D. Little, Inc. \$2.

OPERATING

• Programming and Supervising a Corrosion Control Department, by Pat H. Miller. 25 cents.
• Planning for the Future in an Atmosphere of Change, by H. R. Huntley. 25 cents.
• Factors Affecting the Stability of Odorants in Gas Mains, by A. H. Wicht and I. Deutsch. 25 cents.
• Performance of Supported Nickel Catalysts in Cyclic Steam Reforming of Natural Gas, by J. M. Reid and D. McA. Mason. 25 cents.
• New Waterless Gas Holder Sealants, Their Selection and Use, by Joseph A. Knell. 25 cents.
• Automatic High-Pressure LPG Installation for Peak Shaving, by Herbert C. Jones. 25 cents.

• New Developments in Anthracite Gasification, by J. W. Eckerd and John Ratway. 25 cents.

• Survey of Current Gas Conditioning Practices, by Hermann Laudani. 25 cents.

• Manufacture of Substitute Natural Gas from Coal, by C. G. von Fredersdorff and F. E. Vandaveer. 25 cents.

• Peak Shaving Versus Winter Natural Gas Service—A Method for Determining the Most Economical Combination, by Dean B. Seifried. 25 cents.

• Bibliography on Gas Conditioning, by Lyman M. Van der Pyl. 25 cents.

• Bibliography on Odorization of Gas, by Lyman M. Van der Pyl. 25 cents.

• Report of Builders' Subcommittee, by D. K. Taylor. 25 cents.

• Industrial Practice in the Care of Stand-by Production Equipment, by D. A. Dundore. 25 cents.

• Eighth Annual Report on Statistics, by Subcommittee on Underground Gas Storage Statistics. Free.

• The Gas Industry in France, by Jean LeGuellec. 25 cents.

• Telemetering, Remote Control and Automatic Calculation, by C. E. Pettry. 25 cents.

• Pipeline Research—Pacesetter for Growth, by D. C. Benson. 25 cents.

• Gas Storage Under a Metropolitan Area, by J. H. N. Ellis and T. C. McLean. 25 cents.

• Offshore Gas Measurement—Why and How, by C. E. Terrell. 25 cents.

• Progress in Solar-Weather Research, by Walter Orr Roberts and Norman J. Macdonald. 25 cents.

• Potential Computer Applications to Gas Operations, by W. A. Shipman and L. J. Rankine. 25 cents.

• Constructing, Testing and Operating a Canadian Natural Gas Pipeline System, by Eldon V. Hunt. 25 cents.

• The Storage of Gas in Water Sands, by Douglas Ball and Peter G. Burnett. 25 cents.

• Summary of Eighth Annual Report on Underground Gas Storage Statistics, by Lysle R. Kirk. 25 cents.

• Prevention of Corrosion of Stored Pipe and Laboratory Evaluation of Internal

Canadians find new gas

TWO NEW GAS DISCOVERIES have been announced in northeast British Columbia. They are Kotcho Lake No. 3 and Petitot River No. 1. Kotcho Lake No. 3, a discovery of Gulf States Oil Co., has been described as likely to exceed the B. A. Shell Berland River, an Alberta well which has produced an open flow of 1,500,000,000 cubic feet, the largest in Canada. Petitot River No. 1 is expected to flow in excess of 150,000,000 cubic feet.

Pipe Coatings for Natural Gas Service, by G. G. Wilson. 25 cents.

• Elimination of Underground Freezing Caused by Regulation, by J. H. Davis. 25 cents.

• Internal Cleaning Operations on Pipelines: Part I—Water and Detergent Method, by Clinton McClure; and Part II—On Stream Method, by P. L. Huguen. 25 cents.

GENERAL MANAGEMENT

(Mimeographed papers from Section's conference.)

• Four Men in a Boat, by Frank C. Smith. 25 cents.

• The Role of the Commercial Banker in Financing Gas Utilities, by Donald M. Graham. 25 cents.

• The Long, Hard Fight To Control Overhead Costs, by Richard F. Neuschel. 25 cents.

• The Underground Movement in the Gas Industry, by Herman L. Fruechtenicht. 25 cents.

• The Outlook for Business, by John D. Wilson. 25 cents.

• Let's Make It Our Business, by T. F. Patton. 25 cents.

• What Is the Gas Industry Doing About Management Development? by Dwight S. Sargent. 25 cents.

• Safety Is Management's Business, by Donald J. Miller. 25 cents.

(Papers from purchasing and stores conference.)

• A Brief History, by Roy Groves. 25 cents.

• Protection, Storage, and Handling of Material: Identification of Pipe and Fittings, by V. C. Parkes; Storage, Handling, and Use of Plastic Pipe, by H. E. Wade; and Written Procedure for Protection and Storage of Materials, by A. H. Cannon. 25 cents.

• Compiling an Over-all Stock Catalog, by J. G. Hopkins, Jr. 25 cents.

• Disposition of Surplus Materials, by D. L. Sherer. 25 cents.

• Material Handling Subcommittee Report, by Fred McCarroll. 25 cents.

• Standardization Subcommittee Report, by H. D. Dusenberre. 25 cents.

Arkansas Western redecorates display floor



Arkansas Western Gas Co., which recently redecorated the display floor in its general offices in Fayetteville, Ark., has incorporated A. G. A.'s Gold Star award in the exhibits. Included are groups of built-in ovens, top burner units, and various types of brand name equipment

Booklet discusses substructure damage

AN ILLUSTRATED BOOKLET entitled "Prevent Substructure Damage" has been published by the Portland Utilities Coordinating Committee.

According to Paul H. Howe, manager of distribution for Northwest Natural Gas Co., and booklet chairman, the pocket-size, 16-page booklet is being distributed for use by contractors, utilities, public agencies, and others who carry on excavations and other subsurface work in the Oregon and Wash-

ington territories served by the gas utility company.

The booklet points out the high cost and danger to contractors and crews of damaging underground mains, cables, pipes, and conduits, and urges such preventive steps as asking utilities about the locations of their buried structures.

In addition, the booklet lists emergency telephone numbers for utilities and city and county works agencies.

800 to attend gas measurement course

MORE THAN 800—a record enrollment—gas utility, pipeline, and petrochemical measurement and control engineers and technical personnel will attend the 19th annual Appalachian Gas Measurement Short Course from Aug. 24-26 at West Virginia University in Morgantown, W. Va.

R. H. Lussky, Public Service Commission of West Virginia, and program chairman of the course, has announced that the course's

90 classroom, laboratory, and forum sessions will range from basic principles through shop practice and testing.

In addition, there will be an exhibit of the latest natural gas measurement and control equipment.

More than 50 gas equipment manufacturers will supply displays.

Carl D. Rader, Tennessee Gas Co., is general chairman of the course.

A. G. A. to sponsor industrial gas school

A G. A. IS SPONSORING an Industrial Gas School from Sept. 14-18 at the Penn-Sheraton Hotel in Pittsburgh.

The school's program has been designed to provide basic training for new men and to serve as a refresher and advanced training course for more experienced personnel.

Lectures will cover fundamentals of combustion, combustion systems, burners, heater

applications, prepared atmospheres and atmosphere generators, equipment maintenance, heat treatment and forming of metals, furnaces and their application, steam generation, food processing, salesmanship and sales techniques, and planning, designing, and installing of industrial gas piping systems.

Bound copies of the lectures will be available after the completion of the school.

Highlights of cases before the Federal Power Commission

Bureau of Statistics, American Gas Association

Certificate cases

● Atlantic Seaboard Corp. has been granted temporary authorization to construct and operate approximately 26 miles

of pipeline and a new 8,000-horsepower compressor station on its natural gas transmission system in West Virginia, Virginia, and Maryland. The cost of the entire construction project is estimated by Atlantic Sea-

Kirk names distributor

KIRK INDUSTRIES, INC., has appointed Glenwood Range Co. distributor for "Kirk" gas refrigerators in New England. A "Kirk" 10.2-cubic-foot gas refrigerator is now in production, and a "Kirk" eight-cubic-foot model will be available soon. Glenwood Range, which produces ranges and heaters, has its main office in Taunton, Mass., and its other offices and warehouses in White Plains, N. Y., and Boston.

Utility wins safety award

THE NATIONAL SAFETY COUNCIL'S award for driving without a reportable accident has been presented to 145 Central Illinois Light Co. employees. The 145 drivers who received the awards had driven a total of 1,204,451 miles. In a related development, the company this year inaugurated the practice of awarding United States Savings Bonds as special recognition for safe driving.

Canadian group elects

OFFICERS OF THE NATURAL GAS and Petroleum Association of Canada were re-elected recently at the group's 33rd annual convention. They are John R. Reeves, president; J. W. Ostler, first vice-president; F. R. Palin, second vice-president; G. A. Stammers, treasurer; and H. B. Fry, secretary and assistant treasurer. L. B. Mehlenbacher is past president.

Utility offers scholarships

NIAGARA MOHAWK POWER CORP. has announced that it will provide four college scholarships annually to children of its employees. In addition, the company will award a graduate fellowship every two years for study in education or engineering. The undergraduate awards will be granted according to scholarship, character and need.

Aldrich Co. joins GAMA

THE ALDRICH CO., Wyoming, Ill., has been elected to membership in the gas boiler division of the Gas Appliance Manufacturers Association. P. M. Stephenson is president of Aldrich, which manufactures gas-fired boilers for home heating systems and gas water heaters.

Gas lights burn in Boston

RECENT REPORTS have indicated that the gas light era never really ended in Boston. According to these reports, there are presently some 300 old-fashioned gas lights on the city's streets.

board at \$6.9 million.

● Chicago District Pipeline Co. has received temporary authorization to construct about 50 miles of 36-inch main line

parallel to its existing Joliet-Calumet lines to Chicago and approximately two miles of 30-inch lateral line. The estimated cost of the project is \$12.9 million. The facilities will enable the company to transport natural gas to be received from Midwestern Gas Transmission Co.

● **Columbia Gulf Transmission Co.** has been granted temporary authority to construct and operate a single 4,000-horsepower compressor unit which will be installed in its Station No. 4, located near Hampshire, Tenn. The unit will be remote controlled. The cost is estimated at \$1.7 million.

● **El Paso Natural Gas Co.** has applied for authority to construct about 119 miles of 30-inch loop pipeline and 25,500 horsepower in new and existing compressor stations. The company also proposes to build field facilities consisting of approximately 344 miles of pipeline, 12,900 additional horsepower in existing stations, a 25-million-cubic-foot-per-day increase in the capacity of its Chaco gasoline plant, treating and dehydration plants, and appurtenant equipment. The cost of these facilities, which will be located in Arizona, New Mexico, and Texas, is estimated at \$47.3 million.

● **Equitable Gas Co.** has been authorized to build 12 miles of 16-inch pipeline parallel to a section of its existing system in Harrison and Marion counties, W. Va., and an 880-horsepower compressor unit at the Pratt station in Green County, Pa. The cost of these facilities is \$1.3 million. The facilities will enable the company to increase its delivery capacity by 12 million cubic feet per day.

● **Hope Natural Gas Co.** has received authority to construct and operate approximately 20 miles of 24-inch transmission line and other appurtenant facilities in Wetzel and Monongalia counties, W. Va. The FPC has also approved the abandonment of two 16-inch lines, which will be replaced by the new line. The cost of this project is estimated at \$2.1 million. The new line will have a maximum capacity of about 153 million cubic feet per day; the current maximum capacity is 123 million cubic feet per day.

● **Manufacturers Light and Heat Co.** has received a certificate authorizing it to build about 61 miles of 20-inch pipeline and a 700-horsepower compressor station. The new facilities will replace about 135 miles of parallel lines. The estimated cost of construction is \$5.4 million. The facilities will enable the company to increase the capacity and efficiency of its service to its eastern market customers and to provide needed line storage capacity which was not possible with the old facilities. The old facilities will be abandoned.

● **New York State Natural Gas Corp.** has filed an application seeking authority to construct 30 miles of 20-inch pipeline and some measuring and regulating stations. The cost of construction is estimated at

\$1.6 million.

● **Ohio Fuel Gas Co.** has proposed the construction of about 38 miles of pipeline in several Ohio counties at a cost of approximately \$1.8 million. The company also proposed the abandonment of about 45 miles of small diameter pipeline that is no longer needed for adequate market service.

● **Southern Natural Gas Co.** has been authorized by an FPC presiding examiner—whose decision is subject to review by the Commission—to construct approximately 590 miles of loop lines, new lateral lines into gas fields, and 8,624 compressor horsepower. The cost of these facilities is approximately \$55.3 million. The facilities will enable the company to increase its capacity from 990 million to 1,365 million cubic feet daily and to take contracted gas reserves from fields in southwest Mississippi and southeast Louisiana.

● **Trunkline Gas Co.** has been authorized to build about 895 miles of pipeline, including additional compression and loop lines, parallel to various sections of its existing system in Texas and between Longville, La., and Tuscola, Ill. The authorization also includes a 204-mile extension of the company's system from Tuscola to the Michigan-Indiana border near White Pigeon, Mich., where the line will connect with facilities to be built by Consumers Power Co. and Michigan Gas Utilities Co. The cost of this project is estimated at \$81.5 million. The facilities will increase Trunkline's existing capacity by 135 million cubic feet per day. Consumers Power will receive 125 million cubic feet daily and Michigan Gas Utilities will receive six million cubic feet daily.

● **United Fuel Gas Co.** has received a temporary certificate to construct about 19 miles of 26-inch transmission line in Kanawha County, W. Va. The line, estimated to cost \$2.9 million, is designed to give the company sufficient capacity to meet the demands of its customers and to take care of its storage injection program.

Rate cases

● **Cities Service Gas Co.** has filed a request to increase its wholesale gas rates \$10.5 million, or 18.6 per cent, above current rates. The rate increase would affect 62 wholesale customers in Kansas, Missouri, Nebraska, Oklahoma, and Texas. The company stated that it has experienced increases in all operating and maintenance costs, including purchased gas and wages. Cities Service also cited increases in its rate base and the cost of money, and claimed a 6½ per cent rate of return, in contrast to the 6 per cent return under its present rates.

● **Kentucky West Virginia Gas Co.'s** proposed natural gas rate increase of \$1.8 million, or 35.8 per cent, annually has been suspended. Kentucky West Virginia, in support of its filing, said that its present rates are not sufficient to permit it to

service its debt, attract capital, pay reasonable dividends, and finance a training program adequate to maintain deliveries at their test-year level. The FPC, however, concluded that the proposed increased rates were not fully supported in several respects. The Commission noted that one of Kentucky West Virginia's customers is its parent, Equitable Gas Co., and then questioned whether the subsidiary is actually an independent producer and thereby entitled to a rate of return greater than that allowed the pipelines.

● **Southern Natural Gas Co.'s** proposed \$10.1 million annual wholesale gas rate has been suspended. In support of the filing, Southern Natural relied principally on the increased cost of purchased gas estimated to result from shifts in sources of supply and higher rates of suppliers; on the need for a 6½ per cent rate of return, instead of the 6 per cent in its present rates; and on increased plant investment, operating expenses, taxes, and depreciation expenses.

● **Texas Eastern Transmission Corp.** has filed a proposed \$16.9 million, or 7 per cent, annual wholesale natural gas rate increase. The increase would affect approximately 70 wholesale customers. Texas Eastern Transmission based the proposed higher rates on increased cost of gas, increased operating cost, and higher cost of money, and claimed a 6¾ per cent rate of return, instead of the current 6 per cent return.

● **Transcontinental Gas Pipeline Corp.** has filed a proposed \$15.5 million, or 11.1 per cent, annual natural gas rate increase. This includes a \$15.1 million increase in the company's wholesale gas rates and \$416,000 for storage service. The proposed higher rates would affect 75 wholesale customers. The company based the filing primarily on increases in the cost of purchased gas and on its claim for a 6½ per cent rate of return, instead of the 6 per cent return under its present rates.

SUMMARY OF INDEPENDENT GAS PRODUCER RATE FILINGS—MAY 1959

	Number	Annual Amount
Tax rate increases allowed without suspension	1	\$ 461
Other rate increases allowed without suspension	41	393,824
Rate increases suspended	65	3,878,573
Total rate increases	107	4,272,858
Tax rate decreases allowed without suspension	—	—
Other rate decreases allowed without suspension	—	—
Total rate decreases	—	—
Total rate filings	526	—
Total rate filings acted on from June 7, 1954, to May 31, 1959	38,327	—
Rate increases disposed of after suspension	14	534,814
Amount allowed	14	534,814
Amount disallowed	—	—
Amount withdrawn	—	—
Rate increases suspended and pending as of May 31, 1959	2,287	\$100,406,080

Simpson, Morgan retire from Peoples Gas Light and Coke; seven are promoted

THE PEOPLES GAS LIGHT AND COKE CO. has announced two retirements and seven new appointments.

George I. Simpson, superintendent of the general accounting department, has retired after 51 years; and George A. Morgan, superintendent of the market research department, has left the company after 34 years.

In a move designed to integrate more closely the company's accounting functions, John Carlson, assistant budget director, was appointed chief accountant. He will supervise

directly the general, property, and gas accounting departments.

John J. O'Connell was promoted to manager of the regulatory and statistical accounting department. He was previously supervisory statistical accountant.

Joseph P. Thomas was named manager of the rates and markets departments. He was formerly administrative assistant in the office of the vice-president and comptroller.

John Cruickshank became superintendent of the general accounting department. He was

previously supervisory general accountant.

John F. Thorne and Carl J. Djerf were named administrative assistants on the staff of the vice-president and comptroller. Mr. Thorne was formerly assistant superintendent of the general accounting department. Mr. Djerf served previously as assistant superintendent of statistical accounting.

Arthur Skelton, general superintendent of the methods and procedures department, has assumed the additional responsibility for the archives department.

Personal
and
otherwise

Houston Natural elects Carrington Mason vice-president

CARRINGTON MASON has been elected vice-president in charge of operations for Houston Natural Gas Corp.

Mr. Mason, who was previously assistant vice-president of operations, succeeds the late E. S. George.

Mr. Mason joined Houston Natural Gas as an industrial engineer in 1949. He became acting general sales manager in 1951, executive assistant in 1952, and assistant vice-

president in 1955.

A registered professional engineer, Mr. Mason is president of the San Jacinto Chapter of the Texas Society of Professional Engineers and a director of the Houston Chapter of the American Institute of Industrial Engineers. In addition, he is a member of A. G. A., the Southern Gas Association, and the Texas Mid-Continent Oil and Gas Association.

Conover named manager of operations for South Jersey Gas; Darlington retires

BRUCE W. CONOVER has been appointed manager of operations for South Jersey Gas Co.

In another development, Frank H. Darlington, vice-president in charge of operations, has retired after 37 years.

Mr. Conover joined South Jersey Gas in 1953 as assistant engineer. He had previously served with North Shore Gas Co. as indus-

trial sales representative and assistant superintendent of construction.

In 1957, he became superintendent of operations.

Mr. Conover is a member of A. G. A.'s Operating Section, the New Jersey Gas Association, and the National Society of Mechanical Engineers.

Mr. Darlington started his career with

Public Service Electric and Gas Co. In 1922, Mr. Darlington joined Peoples Gas Co., which later became a part of South Jersey Gas.

He was named general superintendent of operations in 1951, and vice-president in charge of operations in 1956.

Mr. Darlington is a past president of the New Jersey Gas Association.

Stinsman wins seal contest



Although no one selected "gold star" as his entry in A. G. A.'s recent "name the seal" contest, the Gold Star Gas Appliance Committee declared as winner William H. Stinsman, Jr. (r.), manager of the dealer division, Philadelphia Gas Works, whose "entry was judged to be the best out of those submitted." He received a \$500 United States Savings Bond and an engraved plaque from Christy Payne, Jr., vice-president, The Peoples Natural Gas Co., on behalf of the Association

Consolidated Natural names Comerford chairman

JAMES COMERFORD has been elected chairman of the board of Consolidated Natural Gas Co. Mr. Comerford, who became president in 1955, will continue to serve also as chief executive officer.

E. H. Tollefson was named president and chief operating officer. He was previously executive vice-president.

All other officers were re-elected. They are C. William Cooper, vice-president and general counsel; Herbert C. Johnson, vice-president and chief financial officer; John Miller, secretary; Malcolm S. Lonon, treasurer; Arthur E. Gartner, controller; Walter C. Kronke, assistant treasurer; and John C. Stansbury, assistant treasurer and assistant secretary.

Northern Natural elects Vaughan, Haas, Grantham

NORTHERN NATURAL GAS CO. has elected three vice-presidents.

They are A. L. Vaughan, vice-president in charge of operations, southern region; W. B. Haas, vice-president in charge of operations, northern region; and J. O. Grantham, vice-

president, employee relations.

Messrs. Vaughan and Haas were previously the general managers of their respective regions.

Mr. Grantham was formerly manager of employee relations.

Kansas group elects Schwinn executive vice-president

TOM SCHWINN, an attorney, has been elected executive vice-president of the Kansas Independent Oil and Gas Association.

Mr. Schwinn succeeds Tom Orr, who resigned to become a partner in Braden Drilling Co.

Mr. Orr had been with the association for 10 years.

Mr. Schwinn was elected to the Kansas House of Representatives for the 1957-58 term. He has practiced law in Wellington, Kan., since 1952.

Names in the news—a roundup of promotions and appointments

UTILITY

Homer J. Penn has been named legal assistant to the vice-president and manager of the gas department of Republic Natural Gas Co. Mr. Penn was previously an attorney for Argo Oil Corp., San Antonio, Texas.

Vance M. Thompson has been elected to the board of directors of Arkansas Louisiana Gas Co. He succeeds Robert S. Davis, who resigned. Mr. Thompson is vice-president of the Bank of McCrory (Ark.) and a board member of Arkansas-Missouri Power Co.

A. E. Hamalainen has been promoted to superintendent of Transcontinental Gas Pipe Line Corp.'s Compressor Station No. 5 in Eunice, La. He was previously superintendent of the Chatham, Va., compressor station. H. E. Melton, who was formerly repair foreman at the Kings Mountain, N. C., compressor station, has been appointed superintendent of the Chatham facility, Compressor Station No. 36.

The United Gas Improvement Co. has announced three personnel changes. Frank Krizan has been named air conditioning sales engineer. In 1953, after having spent five years in the firm's sales and operating departments, he was appointed assistant to the manager of sales and public relations. William W. Weill has succeeded Mr. Krizan as assistant to the manager of sales and public relations. Mr. Weill joined the company in 1956 as residential sales supervisor in the Lancaster County gas division. Robert M. Middleton has been named to succeed Mr. Weill in Lancaster County. Mr. Middleton has been a retail salesman in the Reading gas division since 1953.

Four personnel changes in the gas distribution department have been announced by Public Service Electric and Gas Co. Howard C. Roemmele has been named assistant to the general superintendent of distribution in the general office. Mr. Roemmele, who joined the firm in 1923, was named superintendent in the central division in 1956. Joseph S. Hopkins has succeeded Mr. Roemmele in the central division. Mr. Hopkins started with the company in 1926, and served recently as staff engineer in the central division. Harold W. Wilson has replaced Mr. Hopkins as division staff engineer. Mr. Wilson, who joined the firm in 1921, has been serving as superintendent of the Plainfield (N. J.) district. John E. Allen has succeeded Mr. Wilson in Plainfield. Mr. Allen started with the company in 1951, and became an engineer in the Orange-Montclair (N. J.) district in 1955.

Joseph G. Burns has been promoted to executive assistant in the sales department of Michigan Consolidated Gas Co. He joined the firm in 1927, and served recently as superintendent of the customer service department.

Paul R. Steele has retired from New York State Natural Gas Corp. after 35 years with affiliated companies of Consolidated Natural Gas Co. Since 1951, he had worked in New York State Natural's gas measurement accounting department.

Dr. Gus E. Montes has joined Northern Natural Gas Co. as technical director of the gas products development department. He was formerly chief technologist for U. S. Industrial Chemicals Corp., Tuscola, Ill.

Hope Natural Gas Co. has announced three promotions. Benjamin H. Cooksey, Jr., has become manager, budget control and planning. He joined the firm in 1946, and was named manager, gas measurement, in 1958. John A. Rodawalt has succeeded Mr. Cooksey. Mr. Rodawalt started with the company in 1933, and became supervisor, gas measurement office, last year. Raymond A. Goodwin has replaced Mr. Rodawalt. Mr. Goodwin joined the firm in 1941, and became a senior accountant earlier this year.

MANUFACTURER

Leo Shibley has joined the utility department of Norge Sales Corp. as manager of the western utility region.

Leo E. Garland has been promoted to manager of the western division of Walworth Co.

Robertshaw-Fulton Controls Co. has announced five personnel changes. William M. Harcum has been named general manager of the Eastern Research Center. He replaces Ralph V. Coles, who has been appointed general manager of European operations. Mr. Harcum, who joined the firm last year, was previously head of the research center's physics department. Mr. Coles started with the company in 1951, was elected a vice-president in 1952, and was named general manager of the research center in 1957. George Revesz has been promoted to technical director of the research center. He joined the firm in 1954, and has been in charge of the electricity and electronics department. Ernest H. Furstenau has been elected an assistant secretary. He started with the company in 1949, and became assistant treasurer in 1957. Donald J. Neary has been appointed production manager of the Bridgeport thermostat division. He joined the firm in 1948, and became assistant production manager in 1953.

G. J. Tankersley, president of Western Kentucky Gas Co., has been elected to the board of directors of Arkla Air Conditioning Corp. Mr. Tankersley is also president of Kengas, Inc., a director of the Southern Gas Association, and a member of A. G. A.'s General Promotional Planning Committee. In another development, Charley Lockhart has been named an associate for water chiller equipment in Texas. Mr. Lockhart is president and general manager of Southwest Distributors, Inc., Dallas.

James R. Brown, Jr., has been appointed director of manufacturing for Dresser Industries, Inc. He was previously with Baldwin Lima Hamilton Corp., Eddystone, Pa.

Thomas H. Schwesinger has been named manager of the east central division of Cribben and Sexton Co. He succeeds A. A. Barnhart, who has been appointed manager of the eastern division.

Mr. Schwesinger was formerly a sales representative for The East Ohio Gas Co. In another development, James B. Paschal has joined the company as quality control manager.

Robert A. Strain has been promoted to manager of utility relations for The Maytag Co. He succeeds the late B. B. Turner. Mr. Strain has been a regional manager since he joined Maytag in 1954.

John D. Karl has been appointed district sales representative for Caloric Appliance Corp.'s Minneapolis-St. Paul territory. He succeeds Tom Johnson, who has been promoted to assistant manager of the midwest sales division. In another development, F. H. (Ted) Moore has been named sales representative for Georgia.

Louis R. Farber has been appointed marketing manager of Temco, Inc. Mr. Farber joined Temco in January as advertising and sales promotion manager. He will serve in both posts.

Joseph J. Rosecky has been named executive vice-president of Clark Bros. Co. He succeeds F. W. Lavery, who was recently elected president. Mr. Rosecky joined Clark Bros. in 1957 as vice-president/operations. Ernest G. Hotze has been appointed southwest district manager. He joined the firm in 1942, and was named Houston district manager in 1955.

Fred O. Snyder has been named manager of Worthington Corp.'s district sales office. He succeeds Ralph G. Griffin, who has transferred to the company's Harrison, N. J., office. Mr. Snyder joined the firm in 1941, and has been serving recently as a sales representative in the Cleveland area.

Gilbert T. Bowman has been elected a vice-president of Rockwell Manufacturing Co. He will be in charge of both the international division and the petroleum and industrial division. Mr. Bowman joined the company in 1940, and became assistant vice-president of the meter and valve division in 1956. Paul A. Wick has been elected secretary. He started with the firm in 1946, was named assistant secretary in 1948, and became, in addition, assistant to the president in 1951.

OTHER

Frank M. Gibbons has joined Commonwealth Services, Inc., as supervisor of oil refining and petro-chemical consulting activities. He was formerly a project manager for oil refinery engineering and construction with Fluor Corp., Ltd.

John E. Heyke, president of The Brooklyn Union Gas Co., has been elected president of the Brooklyn Chamber of Commerce.

Frederick C. Gardner, president of Ebasco Services, Inc., has been elected to the board of directors of the North Carolina Engineering Foundation.

Richard H. Green has joined the public relations staff of the National LP-Gas Council. He was previously associate editor of *Concrete Products*, a magazine published monthly for the concrete industry.

Elizabethtown Consolidated Gas elects Rohrs, Coon, Crilly, Potter, Kean, Graham

ELIZABETHTOWN CONSOLIDATED GAS CO. has elected six new officers. They are Henry Rohrs, executive vice-president; George Coon, vice-president, operations; John J. Crilly, assistant vice-president, operations; William T. Potter, vice-president, accounting and commercial; John Kean, vice-president, sales and public relations; and Harry L. Graham, treasurer.

Mr. Rohrs joined the firm in 1930 as a gas heating salesman, and was appointed vice-president and treasurer in 1950. He is a member of A. G. A. and the Society of Gas Lighting, a director and past president of the New Jersey Gas Association, and a director of the New Jersey Utilities Association.

Mr. Coon started with the company in 1932 as distribution engineer, and was named chief engineer last year. He is a member of A. G. A., the New Jersey Gas Association, the National Association of Corrosion Engineers, and the Society of Gas Operators.

Mr. Crilly joined the firm 49 years ago. In 1935, he was named superintendent of production, a position he still holds.

Mr. Potter was general manager of Perth Amboy Gas Light Co. in 1950, when that firm merged with Elizabethtown Consoli-



Henry Rohrs



George Coon



John J. Crilly



W. T. Potter

dated Gas. He is serving as president of the New Jersey Gas Association and is a member of A. G. A.

Mr. Kean joined Elizabethtown Consolidated Gas three years ago. He is a director of Elizabethtown Gas Co. and Plainfield Union Water Co., and a member of A. G. A. and the New Jersey Gas Association.

Mr. Graham has been with the company for 39 years. He started as a clerk in the commercial department, later became a bookkeeper in the general office, and was named assistant secretary in 1952. He is a member of the New Jersey Gas Association.



John Kean



Harry L. Graham

Michigan Wisconsin Pipe Line elects J. J. Trebilcote, R. M. Hoffer vice-presidents

MICHIGAN WISCONSIN PIPE LINE CO. has elected James J. Trebilcote and Robert M. Hoffer vice-presidents. In addition, Mr. Trebilcote was elected to the board of directors and reappointed manager of operations.

In another development, Mr. Hoffer was

elected a vice-president of American Louisiana Pipe Line Co. Mr. Hoffer, who has been controller of the two affiliated pipeline systems since 1957, was also reappointed to both of those posts.

Mr. Trebilcote joined Michigan Wisconsin Pipe Line in 1948. He served subsequently

as administrative assistant to the vice-president in charge of operations and as assistant manager of operations. He was named manager of operations in 1958.

Mr. Hoffer, a certified public accountant, was a partner in the accounting firm of Arthur Andersen and Co.

Wisconsin association elects Willson president



Stuart V. Willson

THE WISCONSIN UTILITIES Association has elected new officers.

Stuart V. Willson, president, Northern States Power Co., became president. He succeeded Floyd L. Larkin, who was elected chairman of the board of directors. Mr. Willson was previously vice-president.

Harry I. Miller, vice-president of division operations, Wisconsin Public Service Corp., was installed as vice-president.

Lester M. La Porte, vice-president and controller, Wisconsin Electric Power Co., became treasurer. He succeeded Earl G. Frank.

The association recently abolished its position of executive secretary and created the post of managing director. Dale F. Hansman, who was serving as executive secretary, was named to the new post.

The association moved to new quarters in the Empire Building, 710 North Plankinton Avenue, Milwaukee.

H. D. McHenry promoted

H. D. MCHENRY has been elected executive vice-president of Southern Natural Gas Co. He was previously vice-president, secretary, and general counsel. Mr. McHenry joined Southern Natural Gas in 1936. He was employed in the firm's New York office until 1941, when he moved to the Birmingham, Ala., office.

Crane, Clifford promoted

CONSOLIDATED EDISON CO. of New York, Inc., has announced the election of John J. Crane as assistant secretary and Harvey G. Clifford as assistant treasurer. Mr. Crane is also secretary and treasurer of Consolidated Telegraph and Electrical Subway Co., a subsidiary of Consolidated Edison. Mr. Clifford was previously cashier.

Thomas named comptroller

CHARLES E. THOMAS has been named comptroller of City Gas Co. and internal auditor for both Dade Gas Co. and South Dade Gas Corp. Mr. Thomas was previously with the accounting firm of Ernst and Ernst.

Miller elected treasurer

GEORGE W. MILLER has been elected treasurer of Philadelphia Electric Co. He succeeds Clifford Winner, who has retired. Mr. Miller joined the firm in 1924. In 1943, after having held supervisory posts in both the personnel department and the statistical division, he was appointed assistant paymaster. He became assistant treasurer last year. Mr. Miller is a member of both A. G. A. and the Edison Electric Institute.

Hope awards scholarship

BENNY JOE MCCOY of Fairview, W. Va., has been awarded a full four-year scholarship to the Illinois Institute of Technology by Hope Natural Gas Co. The scholarship is presented annually on a competitive basis. Mr. McCoy, one of 75 applicants from Hope Natural Gas' West Virginia service areas, scored highest on a written examination given by the Illinois Institute of Technology. He plans to major in gas technology.

Jeffe named president of Michigan Gas Utilities

E. F. JEFFE has been named president and chief executive officer of Michigan Gas Utilities Co. He was formerly president of Kings County Lighting Co. and New York

and Richmond Gas Co. In another development, W. L. Matheson of the New York law firm of Matheson and Ehrenclo was named chairman of Michigan Gas Utilities.

OBITUARY

Walter Herbert Fulweiler

a member of the committee on science and the arts of The Franklin Institute, died on Dec. 20, 1958. He was also a member of the institute's board of managers. Mr. Fulweiler was 78.

Mr. Fulweiler joined the institute and its committee in 1911. He served as chairman of the committee in 1923, and became a member of the board of managers in 1935. In 1956, he was awarded a George A. Hoadley Certificate for 45 years of service.

Mr. Fulweiler began his career in 1901 with The United Gas Improvement Co. In 1907, he joined the firm's department of tests, in which he eventually became chief chemist, chemical engineer, and consulting chemist. He served in various capacities with the company and its subsidiaries until 1936, when he entered into a consulting practice.

He joined the American Society for Testing Materials in 1909 and served subsequent terms as president, vice-president, member of the executive committee, and chairman of the committee on thermometers. In 1946, he was named an honorary member.

Mr. Fulweiler was twice awarded A. G. A.'s Beal Medal—in 1908 and 1934. In addition, he received the Grasselli Medal of the Society of Chemical Industry in 1922, and the Silver Medal of the Sesquicentennial International Exposition in 1926.

During World War I, Mr. Fulweiler was active in the production of toluene for the manufacture of TNT. He developed a process for the manufacture of toluene by the heat treatment of California distillates. By the end of the war, a plant capable of producing 3,000,000 tons of toluene per year was utilizing his manufacturing process.

Mr. Fulweiler held memberships in numerous societies, including A. G. A., the American Chemical Society, the Chemical Society of London, the American Institute of Mining Engineering, and the National Research Council. He was also the author of a great many technical articles.

Survivors include his widow, Lydia, three sons, and one daughter.

Allen D. MacLean

chief engineer, Superior Meter Co., died after a heart attack on May 24. He was 62.

Mr. MacLean joined Superior Meter, a subsidiary of Neptune Meter Co., in 1955 as chief products engineer in the Brooklyn plant. He moved to the Punxsutawney plant as chief engineer in 1956.

Before joining Superior Meter, Mr. MacLean was chief products engineer for Mueller Co.

Mr. MacLean began his engineering career as chief draftsman for a Cambridge, Mass., valve firm. He became assistant chief engineer for New Departure Manufacturing Co. in 1919, and later served as the firm's sales engineer in the Midwest.

In 1926, Mr. MacLean joined Pittsburgh Equitable Meter Co., now Rockwell Manufacturing Co., as chief engineer. He later became a vice-president.

He was also previously associated with Chaplin-Fulton Manufacturing Co., Pittsburgh, and the Quimby pump division of H. K. Porter Co., Newark, N. J.

Mr. MacLean is survived by his widow, Mildred.

Leo A. Mayo

controller of The Connecticut Light and Power Co., died on May 22.

Mr. Mayo began his utility career with the former Waterbury Gas Light Co. In 1929, after having served as an auditor and purchasing agent, he became supervisor of customer accounts. (Waterbury Gas Light became part of Connecticut Light and Power in 1931.)

He was appointed director of methods in 1951, and was elected controller in 1954.

Mr. Mayo was a member and past chairman of the Management Committee of A. G. A.'s Accounting Section.

In addition, he was a member of the steering committee of the accounting and finance division of the Electric Council of New England, and a member and past chairman of the accounting committees of Edison Electric Institute and the New England Gas Association.

Charles D. Robison

a retired executive of the Metropolitan Utilities District, Omaha, Neb., died on April 18. He was 82.

Mr. Robison had been with the district for 25 years when he retired on Jan. 1, 1947. His first position at the district was operating engineer in charge of gas plants, water pump stations, and ice manufacturing. He later became manager of gas operations.

Throughout his career, Mr. Robison favored natural gas for Omaha. He was influential in bringing about the changeover from manufactured gas to natural gas, which occurred after his retirement.

Mr. Robison was a life member of the Society of Gas Lighting, which he joined in 1911.

Survivors include his widow, Sarah, two daughters, two sons, one brother, and 11 grandchildren.

CONVENTION CALENDAR

1959

AUGUST

- 9-13 • American School Food Service Association, Civic Auditorium, Brooks Hall, San Francisco, Calif.
- 24-26 • Annual Appalachian Gas Measurement Short Course, West Virginia University, Morgantown, W. Va.
- 25-28 • The American Dietetic Association, Los Angeles, Calif.
- 26-28 • Mid-West Gas Association, Gas School and Conference, Iowa State College, Ames, Iowa.

SEPTEMBER

- 9-11 • Pacific Coast Gas Association, Annual Meeting, Hotel Ambassador, Los Angeles, Calif.
- 11 • New Jersey Gas Association, Annual Convention, Essex and Sussex Hotel, Spring Lake, N. J.
- 14-18 • A. G. A. Industrial Gas School, Penn-Sheraton Hotel, Pittsburgh, Pa.
- 15-16 • Annual Accident Prevention Conference, The Dinkler Plaza Hotel, Atlanta, Ga.
- 17-18 • A. G. A. Great Lakes Public Relations Workshop, Dearborn Inn, Dearborn, Mich.
- 22-23 • Operating Section Organization Meeting, Hotel Roosevelt, New York, N. Y.
- 24 • New England Gas Association Safety Conference, Sheraton Plaza, Boston, Mass.
- 28-29 • A. G. A. Textile Symposium, Greensboro, N. C.

OCTOBER

- 4 • A. G. A. Board of Directors, Conrad Hilton Hotel, Chicago, Ill.
- 5-7 • Annual A. G. A. Convention, Conrad Hilton Hotel, Chicago, Ill.
- 11-16 • American Society for Testing Materials, Sheraton-Palace Hotel, San Francisco, Calif.
- 14-16 • Operating and Sales Convention, Wisconsin Utilities Association, Schroeder Hotel, Milwaukee, Wis.
- 20-22 • American Society of Association Executives, Annual Meeting, Boca Raton Hotel and Country Club, Boca Raton, Fla.
- 30-Nov. 1 • American Society of Refrigerating Engineers, Semi-Annual Meeting, Traymore Hotel, Atlantic City, N. J.

Personnel service

SERVICES OFFERED

Administrative-Executive Accountant—total of 28 years experience in all phases of utility accounting. Eighteen years on operating utilities' properties (16 years as treasurer, secretary and director of gas distributee company, last five years of this period also treasurer and secretary of interstate gas pipeline company). Nine years in holding company offices, and one year as chief field examiner for state utilities commission. Presently employed. Detailed resume on request. 1997.

Advertising and Sales Promotion Manager—unusual combination of top engineering background, strong sales and marketing experience, and pronounced artistic ability. Fifteen years of successful and productive accomplishment in the heating and air conditioning fields. Big company background. Thoroughly familiar with all phases and details of national and local level advertising, sales promotion and marketing. Capable of setting up and managing dynamic and effective advertising department. Creative, seasoned, young (40) executive whose results spell quality, prestige, acceptance. Resume on request. Salary open. 1960.

Customer Service Manager—former supervisor of customer service of large combination utility; headed 18-man staff handling service, credit and collection, high bill inquiries, correspondence, rate administration. Taught customer relations to company personnel, prepared publication material for customers, designed order systems and departmental record-keeping. Married, will relocate. Age 44. 1961.

Gas Pipeline Engineer—graduate engineer with 12 years experience in design, construction and operation of natural gas and products pipelines. Desires a permanent position in South or Southwest. Registered professional engineer, age 40. Good health, available. 1962.

Gas Engineer—graduate mechanical engineer with four years experience in gas industry, including LP-Gases and devices for the production of oil gas. Experience as assistant resident engineer and designer. Seeking position heading up design and development program. Immediately available. Detailed resume

on request. Salary open. Married. Age 30. 1963.

Plant Manager, Production Superintendent, Technical Manager—Eight years experience in chemical engineering both with the government (Ordnance Corps) and the chemical industry (DuPont). Good technical background and eight years supervisory experience. Well versed in business economics, development and process improvement work. Graduate of West Point and the University of Michigan. 1964.

POSITIONS OPEN

Industrial Engineer—large southeast Pennsylvania utility has two openings on industrial engineering staff. I.E. degree with experience or equivalent. Excellent working conditions, and fringe benefits. Salary commensurate with experience. (1) Work Performance Measurement—experience with time study, M.T.M., work sampling and other measurement techniques. Knowledge of productivity reporting systems, methods improvements and systems studies desirable. (2) General Industrial Engineer—experience with systems studies, materials handling, time-motion study, drafting and blueprints, flow process studies, etc. 0895.

Engineer-Development—graduate engineer with experience in electro-mechanical gadgets, heat transfer on gas combustion problems. 0896.

Gas Consulting Engineer—unusually attractive opportunity with exceptional future prospects is available to a graduate engineer with at least 10 years diversified experience in the gas industry, including engineering, operating and construction phases. Previous consulting experience in this field desirable. Salary open, send complete resume. 0897.

Product Engineer—leading manufacturer of air conditioning equipment has position openings for project engineers for gas furnace and residential air conditioners. Must be college graduate with two years experience. All replies held in strict confidence. Send complete resume. 0898.

Manager—35-48 years old. Small natural gas property in South (22 employees). Excellent growth situation for promotion-minded man.

Salary commensurate with ability, experience, education. 0899.

Industrial Gas Sales Engineer—medium size, growing natural gas utility in Midwest has opening for experienced industrial gas engineer. This opportunity calls for a man with ambition and managerial ability. Write giving age and qualifications. 0900.

Top Level Consultant on Gas Operations—opportunity with large engineering and management consulting organization. College graduate, with broad experience in natural gas operations including administration, engineering, operations and knowledge of economics of gas business including rates. Salary open—experience and capacity controlling. Send complete resume including education, experience, references and salary expected. 0901.

Accountants—national consulting organization offers attractive salary and opportunity to men with competent experience in public utility accounting, systems and procedures, machine methods. College degree and previous experience in position of responsibility preferred. Send complete resume. 0902.

Sales Engineers—for control system sales to the petroleum and gas industry. Must have P.E. degree or equivalent and at least two years experience in instrumentation and control field. Starting salary commensurate with experience. Will be working for established organization with headquarters in Pittsburgh, Pa. 0903.

Development Engineer or Technician—manufacturer of gas heating equipment needs man to assist development laboratory work to consist of design, testing, model building, etc. Mechanical engineering background preferred but not essential. A. G. A. Laboratories training helpful. Salary commensurate with ability. Send resume. 0904.

Gas Promotion Engineer—engineering degree with at least two years experience in the industrial, commercial and central house heating, air conditioning and miscellaneous appliances, covering gas sales, engineering, supervisory installation and service. Must be thoroughly experienced in preparing heating and air conditioning surveys and selling gas equipment for the promotion of gas sales on the northwest gulf coast of Florida. Starting salary, \$452 ranging to \$544 per month. Send full resume. 0905.

GAMA publishes 1959 edition of 'Natural Gas Construction Data'

THE GAS APPLIANCE Manufacturers Association has just published the 1959 edition of *Natural Gas Construction Data*.

The edition includes details about more than 90 per cent of the total natural gas pipeline mileage authorized during 1958 by the Federal Power Commission and more than 94 per cent of the pipeline mileage involved in the projects which were pending hearing and disposition by the commission

on Jan. 1, 1959.

In addition, there is a separate section dealing with the major authorizations and filings during the first four months of this year.

The annual data summary also covers post-World War II natural gas expansion, names and addresses of gas transmission companies, cities benefiting by the 1958 authorizations, and charts on such subjects as

natural gas reserves, production, customers, and pipeline miles.

A limited number of copies of the 1959 edition are available, at \$3 per copy, from the Gas Appliance Manufacturers Association, 60 East 42 Street, New York 17, N. Y. In addition, a small number of copies of the six previous annual editions are still available, at \$1 per copy, from the same address.

Texas Gas bought; Riggins remains president; directors named

TEXAS GAS CORP. has been acquired by a group headed by Carl M. Loeb, Rhoades and Co., investment bankers of New York; Godfrey L. Cabot, Inc., of Boston; and Russell M. Riggins, president of Texas Gas.

The terms of the sale were not made public.

Mr. Riggins has been president of Texas Gas for nine years.

The new board of directors includes,

among others, Mr. Riggins; Mark J. Millard and Gene M. Woodfin, general partners of Loeb, Rhoades; William S. Edgerly and Eugene L. Green, Jr., of Cabot; and Carl M. Mueller of Bankers Trust Co. of New York.

A.G.A.'s employee newsletter wins award

A. G. A.'s SEMIMONTHLY employee newsletter, *Staff Staff*, has been awarded a certificate of merit in the 1958 awards program conducted by the International Council of Industrial Editors.

The newsletter was one of 61 winners selected from a field of 838 entries from the United States, Canada, and Great Britain.

The certificate of merit was awarded "in

recognition of exceptional accomplishment in achievement of purpose, excellence of editorial content, and effectiveness of design." The presentation ceremonies were held during the industrial editors' recent annual convention in Milwaukee.

Staff Staff is edited by Mrs. Jane Powell, who is also news editor of the A. G. A. MONTHLY.

Metropolitan council elects

THE METROPOLITAN GAS HEATING and Air Conditioning Council has elected new officers for the 1959-60 term. They are chairman, Robert F. Grier, residential sales manager, Stamford division, The Hartford Electric Light Co.; vice-chairman, Charles Chlanda, Jr., Central Hudson Gas and Electric Co.; and secretary-treasurer, Lewis S. Jackson, Long Island Lighting Co. Louis J. Wagner is the outgoing chairman.

A.G.A. advisory council

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